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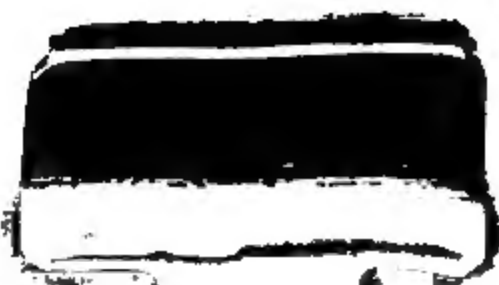
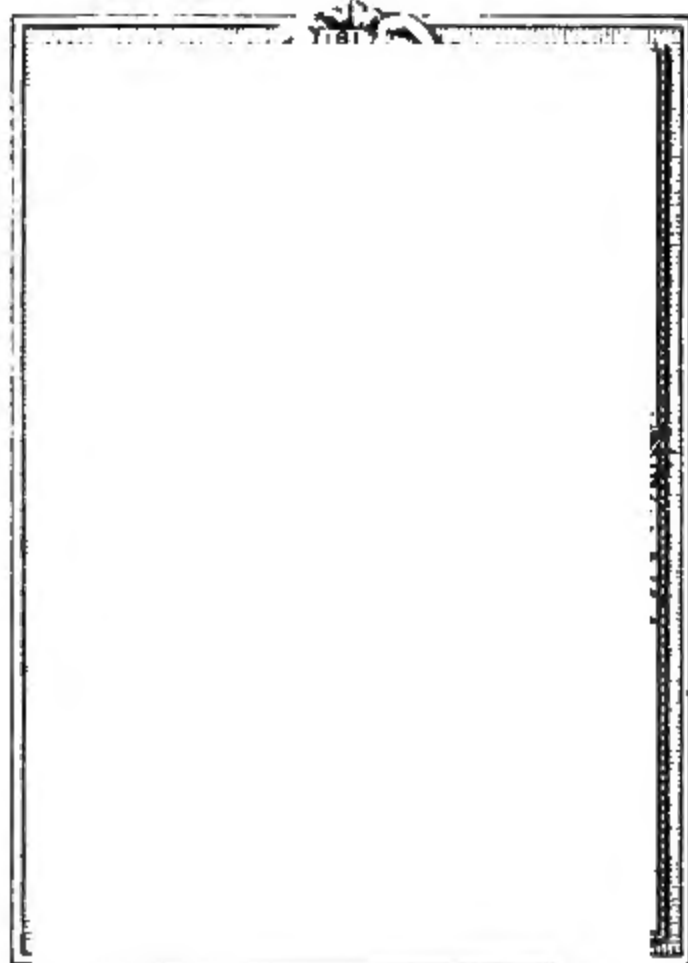
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AB
A.

ANNUAL REPORT
OF THE
PUBLIC WORKS DEPARTMENT
FOR THE
YEAR 1916

COMPLIMENTS OF

EDWARD F. MURPHY,

Commissioner of Public Works

PLEASE EXCHANGE

CITY OF BOSTON
PRINTING DEPARTMENT
1917

Dup. 18
D. of D.

ANNUAL REPORT
OF THE
PUBLIC WORKS DEPARTMENT
FOR THE
YEAR 1916



Dup. 18
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CITY OF BOSTON
PRINTING DEPARTMENT
1917

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FEB 13 1918

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ANNUAL REPORT
OF THE
PUBLIC WORKS DEPARTMENT
FOR THE
YEAR ENDING JANUARY 31, 1917.

Boston, February 1, 1917.

HON. JAMES M. CURLEY,
Mayor of the City of Boston:

SIR,— In compliance with the Revised Ordinances, the annual report of the operations and expenses of the Public Works Department for the year ending January 31, 1917, is respectfully submitted. The Public Works Department, created by Ordinances of 1910, chapter 9, now chapter 28 of the Revised Ordinances of 1914, was formed by consolidating the Engineering, Water and Street Departments.

ORGANIZATION.

The work of the department has been carried on during the year with three main divisions, as follows:

Central Office.

Highway Division.
Bridge and Ferry Division.

NOTE.— The Boston and Cambridge Division, so called, is not strictly speaking a division of the Public Works Department, as this work is in charge of a com-

mission of two, one member appointed by the Mayor of Boston and the other by the Mayor of Cambridge, under the provisions of chapter 412 of the Acts of 1904; but because of the fact that the present Commissioner of Public Works is the Boston member of this commission and also because one half of the expenses of this commission is defrayed by the Bridge Service, it is here treated as a division of this department.

APPROPRIATIONS.

The money assigned for the work of the Public Works Department during the year was made available from the following sources:

First: Maintenance appropriation, derived from the income of the city raised by taxation. In December, 1915, the department estimates of the money necessary for the proper maintenance and conduct of affairs of the different services were submitted to the Mayor. For the first time in the history of Boston the estimates were made in segregated form to the Mayor, who made such allowance for each item in the budget as he considered necessary and submitted them to the City Council. The total maintenance appropriations as passed by the City Council and approved by the Mayor are shown below. On another page will be found the total expenditures by each service, for each item in the segregated budget:

Central Office	\$74,725 00
Bridge Service	312,247 99
Ferry Service	298,115 75
Lighting Service	779,491 36
Paving Service	981,594 54
Sanitary Service	963,488 76
Street Cleaning and Oiling Service	677,178 76
Sewer Service	323,625 20
Water Service	939,700 16
Total	<u>\$5,350,167 52</u>

Boston and Cambridge Bridges.*

Second.— Loan inside the debt limit for building new streets assessable on abutting property authorized by chapter 393 of the Acts of 1906. (Paving Service.)

Amount expended during the year \$283,644 79

*Paid by Bridge Service.

Third.— Loan inside the debt limit under the provisions of chapter 426 of the Acts of 1897, as amended by chapter 204 of the Acts of 1908, from which all sewerage works are built, except those in the Charles River Basin watershed. (Sewerage Works — Sewer Service.)

Balance, February 1, 1916	\$233,535 53
Loan	600,000 00
Total	<u>\$833,535 53</u>
Expended during the year	560,497 46
Balance, January 31, 1917	<u><u>\$273,038 07</u></u>

Fourth.— Loan under the provisions of chapter 383 of the Acts of 1903, as amended by chapter 485 of the Acts of 1907, by chapter 514 of the Acts of 1908, by chapter 612 of the Acts of 1911, and by chapter 348 of the Acts of 1912, which provides that the City of Boston shall in the year 1913 expend \$400,000 and in each of the next four years shall expend \$400,000, to be met by loan inside the debt limit. (Separate Systems of Drainage — Sewer Service.)

Balance February 1, 1916	\$164,793 21
Loan	400,000 00
Total	<u>\$564,793 21</u>
Expended during the year	490,576 72
Balance January 31, 1917	<u><u>\$74,216 49</u></u>

Fifth.— Loan inside the debt limit, under the provisions of chapter 312 of the Acts of 1911, for the installation of a High Pressure Fire Service. (Water Service.)

Balance February 1, 1916	\$243,102 03
Loan	25,000 00
Total	<u>\$268,102 03</u>
Expended during the year	* 63,126 30
Balance January 31, 1917	<u><u>\$204,975 73</u></u>

* Total expended to January 31, 1917, \$655,024.27.

SPECIAL APPROPRIATIONS.

Loan inside the debt limit, under the provisions of chapter 661, Acts of 1912, for the widening and laying out of certain streets in Boston. (Paving Service.)

Expended during the year on:

Belgrade avenue extension and Beech street widening	\$59 40
Chelsea street, Charlestown, widening	30 30
Hyde Park avenue, widening	490 98
Norfolk street, Dorchester, widening	570 58
Total	<u>\$1,151 26</u>

ALBANY STREET BRIDGE, FREIGHT TRACKS. (Bridge Service.)

Balance February 1, 1916	\$421 52
Expended during the year	46 99
Balance January 31, 1917	<u>*\$374 53</u>

BROADWAY BRIDGE, BOSTON AND ALBANY RAILROAD. (Bridge Service.)

Balance February 1, 1916	\$3,926 45
Expended during the year	85 84
Balance January 31, 1917	<u>\$3,840 61</u>

BROADWAY BRIDGE, REBUILDING. (Bridge Service.)

Balance February 1, 1916	\$29,072 39
Transferred to other appropriations	21,042 65
	<u>\$8,029 74</u>
Expended during the year	983 94
Balance January 31, 1917	<u>\$7,045 80</u>

BROOKLINE AVENUE BRIDGE. (Bridge Service.)

Loan authorized, but not issued, inside debt limit,	\$55,000 00
Expended during the year	0 00
Balance January 31, 1917	<u>\$55,000 00</u>

* Transferred to City Treasury.

CAMBRIDGE BRIDGE, PAINTING AND REPAIRING. (Bridge Service.)

Balance February 1, 1916	\$6,054 45
Expended during the year	737 10
	<hr/>
Balance January 31, 1917	<u>\$5,317 35</u>

CENTRAL AVENUE BRIDGE. (Bridge Service.)

Balance February 1, 1916	\$735 65
Transferred to City Treasury	735 65
	<hr/>

CHELSEA BRIDGE NORTH. (Bridge Service.)

Balance February 1, 1916	\$16,867 64
Transferred to Chelsea Bridge South	<u>\$16,867 64</u>

CHELSEA BRIDGE SOUTH. (Bridge Service.)

Balance February 1, 1916	\$4,199 46
Transfer from Chelsea Bridge South	16,867 64
	<hr/>
	\$21,067 10
Expended during the year	1,035 18
	<hr/>
Balance January 31, 1917	<u>\$20,031 92</u>

DOVER STREET BRIDGE. (Bridge Service.)

Balance February 1, 1916	\$2,079 13
Expended during the year	<u>\$2,079 13</u>

FOOTBRIDGE DALTON STREET TO BOYLSTON STREET. (Bridge Service.)

Balance February 1, 1916	\$9,445 00
Transferred to Granite Avenue Bridge	<u>\$9,445 00</u>

MALDEN BRIDGE. (Bridge Service.)

Revenue received from Boston Elevated Rail- way Company	\$57,558 43
Expended during the year	<u>\$57,558 43</u>

MERIDIAN STREET BRIDGE. (Bridge Service.)

Balance February 1, 1916	\$15,152 62
Expended during the year	0 00
	<hr/>
Balance January 31, 1917	<u>\$15,152 62</u>

SPRING STREET BRIDGE. (Bridge Service.)

Balance February 1, 1916	\$5,427 37
Revenue	1,500 00
Total	<u>\$6,927 37</u>
Expended during the year	5,287 95
Balance January 31, 1917	<u><u>\$1,639 42</u></u>

SUMMER STREET BRIDGE, over New York, New Haven &
Hartford Railroad. (Bridge Service.)

Balance February 1, 1916	\$1,862 36
Expended during the year	362 68
Transferred to City Treasury	<u><u>\$1,499 68</u></u>

WINTHROP BRIDGE. (Bridge Service.)

Balance February 1, 1916	\$4,466 56
Expended during the year	0 00
Balance January 31, 1917	<u><u>\$4,466 56</u></u>

FERRY IMPROVEMENTS. (Ferry Service.)

Balance February 1, 1916	\$15 60
Transferred from Broadway Bridge	112 17
Total	<u><u>\$127 77</u></u>
Expended during the year	<u><u>\$127 77</u></u>

FERRY SERVICE AUXILIARY LIGHTING PLANT. (Ferry Service.)

Balance February 1, 1916	\$2,000 00
Expended during the year	225 00
Balance January 31, 1917	<u><u>\$1,775 00</u></u>

GRANOLITHIC SIDEWALKS. (Paving Service.)

Balance February 1, 1916	\$26,227 75
Transferred from Reserve Fund	25,000 00
Total	<u><u>\$51,227 75</u></u>
Expended during the year	16,574 44
Balance January 31, 1917	<u><u>\$34,653 31</u></u>

RECONSTRUCTING AND REPAIRING STREETS BY CONTRACT.
(Paving Service.)

Appropriated (from taxes)	\$400,513 35
Transferred from Park and Recreation Department	100,000 00
	<hr/>
	\$500,513 55
Expended during the year	170,650 41
	<hr/>
Balance January 31, 1917	<u>\$329,862 94</u>

REFUSE DESTRUCTOR SITE SPECTACLE ISLAND. (Sanitary Service.)

Balance February 1, 1916	\$15,000 00
Expended during the year	0 00
	<hr/>
Balance January 31, 1917	<u>\$15,000 00</u>

REFUSE TRANSFER STATION. (Sanitary Service.)

Balance February 1, 1916	\$1,570 16
Expended during the year	1,298 50
	<hr/>
Balance January 31, 1917	<u>\$271 66</u>

SERVICE MAINS AND RELAYING MAINS. (Water Service.)

Balance February 1, 1916	\$135,014 40
Expended during the year	47,868 21
	<hr/>
Balance January 31, 1917	<u>\$87,146 19</u>

STRANDWAY AND OLD HARBOR IMPROVEMENT. (Bridge Service.)

Loan inside the debt limit	\$599,000 00
Expended during the year	5,124 42
	<hr/>
Balance January 31, 1917	<u>* \$593,875 58</u>

GENERAL REMARKS.

By appointment of his Honor the Mayor, a committee of experts drew up a program of different kinds of permanent pavement to be laid. This program

* The cost of sewerage works on this work is charged to the appropriation for Sewerage Works.

was put in force during the year and the types of paving adopted and to be followed for future years were as follows:

Class 1. Heavy Traffic Streets.—Granite blocks laid on Portland cement concrete base not less than six (6) inches in thickness, the joints to be filled with Portland cement grout; in the case of excessive grades, pitch to be substituted for grout in the upper inch or so of the joints in order to provide better footing for horses.

Class 2. Main Arteries.—The same type of pavement as Class 1, with a few exceptions where the surroundings require a smoother and less noisy surface, such as wood blocks or the best grades of bituminous pavements.

Class 3. Retail Shopping and Office Building Districts.—Treated wood block pavements; the best grades of bituminous pavements on a Portland cement concrete base. At the present time the only wood recommended for wood block pavements is long-leaf yellow pine.

Class 4. Residential Districts in the City Proper.—Treated wood block pavements; the best grades of bituminous pavements or Portland cement concrete pavements; the choice to be determined by the intensity and character of the traffic.

Class 5. Suburb and Residential Districts.—Cheaper types of bituminous pavements, using old macadam surfaces for the base when suitable, or Portland cement concrete pavements.

Class 6. Park Roads Carrying only Pleasure Traffic.—Bituminous pavements, using old macadam for the base where suitable, or Portland cement concrete pavements.

The committee deemed it inadvisable and unnecessary to prepare new specifications for the pavement recommended in view of the fact that most excellent specifications have been carefully prepared after thorough discussion by experts, and adopted by organizations of high standing.

It was recommended that paving work done by the city and the provisions and requirements of any guaranty relating to such work shall conform substantially to specifications adopted by the American Society of Municipal Improvements for granite block, wood block and bituminous pavements; for Portland cement concrete surfaces the work should conform substantially to the standard specifications of the American Concrete Institute.

The result of the adoption of the recommendation of the committee was the advertising and awarding of contracts in groups. These awards were made on the following basis: Eighteen streets with a yardage of 88,000; 19 streets with a yardage of 44,895; 17 streets with a yardage of 27,645; 14 streets with a yardage of 31,800; 11 streets with a yardage of 35,000; and 8 streets with a yardage of 21,490.

The activities of the various services are briefly summarized below:

BRIDGE SERVICE.

Under the supervision of the Bridge Service footways have been constructed, by contract; one under railroad tracks at Ainsworth street; one at Gove street and another at Wordsworth street over railroad tracks. The possibility of accidents to persons crossing tracks at these locations has been eliminated by the building of these footways. Spring Street Bridge over the Charles river has been widened and the work completed. Malden Bridge, now under construction, is a much needed improvement which will give a much wider and deeper channel.

As a further precaution and safety measure the gates at bridges over tide-waters have been painted with black and white stripes so as to be more noticeable when closed and to serve as a warning that the draw is open.

FERRY SERVICE.

Extensive repairs have been made to three of the ferryboats during the year under orders from the United States steamboat inspectors. A new boat should be built to take the place of the "D. D. Kelly," which has been in active service since 1879.

LIGHTING SERVICE.

Boulevard type of lamps have been installed on Canal street, one of the main arteries of travel to the North Station, and also at City square, Charlestown, and 114 electric and thirty-one gas lamps installed in different parts of the city.

PAVING SERVICE.

The special appropriation of \$500,513.35 provided funds to repave and repair a number of streets which

were in bad condition. This work is being done by contract and the types of paving are those recommended by the committee of experts appointed by the Mayor, and include granite block, wood block and asphalt on a concrete base.

Concrete roadways, the first to be built in Boston, are in process of construction by the department force. Three streets in different parts of the city are being constructed with concrete, which is laid 6 inches deep, increasing to 8 inches deep in the center.

The department force has been employed resurfacing macadam streets in the suburban districts. In all cases either a tar or asphalt binder has been used.

SANITARY SERVICE.

The collection and disposal of ashes and garbage in the suburban districts by contract still continues. The awarding of the contract to the lowest bidder has not been at all satisfactory; the prices bid were so low that the contractors, in three instances, defaulted before the end of the year and the department was obliged to call upon the bonding company to complete the contracts.

STREET CLEANING SERVICE..

The policy of oiling macadam streets was continued during the past year with satisfactory results.

The unusual heavy snow fall of last year made necessary considerable extra work for this service, to keep the streets in the down-town wholesale and retail shopping districts in a passable condition.

The flushing of streets, by pressure flushers, for the removal of accumulated dirt, on paved streets, was adopted and proved very effective.

SEWER SERVICE.

Some of the most important projects of this service during the year were as follows:

A new system of sanitary and storm sewers in Dorchester avenue, from Broadway to Andrew square in connection with the Dorchester Tunnel. New tide-gate chamber on Muddy river conduit in Deerfield street and new tide-gate chamber with overflow at Albany and East Dedham streets. The completion of

the main channel of Stony brook to a point 100 feet beyond Washington street, near Franklin place, and the completion of the main channel of Davenport brook from Codman street to Washington street.

WATER SERVICE.

During the year 13.3 miles of water pipe, varying in size from 8 to 16 inches, were laid, and 168 fire hydrants installed. In East Boston 3,660 linear feet of 24-inch pipe was laid in Chelsea, Porter and Cottage streets and connected with the 12-inch pipe in Maverick street.

Five thousand eight hundred and two meters were installed on old services and 1,287 on new services, making a total now installed of 61,500 meters.

Twenty-six hundred linear feet of 30-inch high service pipe laid in Curve street, Hudson street and Kneeland street, will be connected with the high service in Harrison avenue early in the coming year.

HIGH PRESSURE FIRE SERVICE.

Pending the erection of the high pressure pumping station which is to be built on Commercial street, at the North End Playground, connection has been made with the high service line at Tremont street. This has made 188 hydrants on the high pressure fire service available in the business district in case of fire.

Twenty-five hundred feet of main pipe were laid and 16 hydrants installed on the high pressure service during the year.

THE STRANDWAY.

The improvement of the foreshore, flats and channels of that part of Dorchester Bay, known as Old Harbor, was authorized by chapter 274 of the Acts of the Legislature of this year. Contract has been made for the extension of the present sewer overflows and the dredging of over 1,100,000 yards to a depth of 12 feet below low water. The material dredged will be deposited on the present shore line for a distance of nearly 1,000 feet over the present flats for more than a mile in length, thereby recovering 56 acres of land.

When this work is finished it will provide a large recreation ground for old as well as young and a water filled basin at all tides for boating and bathing.

**Expenditures Under the Maintenance Appropriation of
From February 1, 1916,**

	Central.	Bridge.	Ferry.
A. PERSONAL SERVICE AS PER SCHEDULE A:			
1. Permanent employees.....	\$68,551 73	\$220,978 94	\$180,913 23
2. Temporary employees.....		, 808 25	7,465 09
3. Unassigned.....		873 11	964 42
B. SERVICE OTHER THAN PERSONAL:			
1. Printing and binding.....	873 52		486 36
2 Postage.....	307 65	93 39	6 00
3. Advertising and posting.....		96 52	34 60
4. Transportation of persons.....	229 35	434 10	75 00
5. Cartage and freight.....		36 34	295 03
6. Hire of teams and auto trucks.....		162 28	2,924 72
7. Heat.....			
8. Light and power.....		7,992 65	4,649 09
9. Lighting streets, alleys and parks.....			
10. Rent, taxes and water.....		501 10	
12. Premium on surety bond.....	6 00		90 00
13. Communication.....	62 24	176 08	299 54
14. Motor vehicle repairs and care.....	323 83	1,463 40	
15. Motorless vehicle repairs.....			
16. Care of horses.....			
18. Cleaning.....		17 67	35 75
19. Removal of ashes, dirt and garbage.....			24 57
20. Disposal of ashes, dirt and garbage.....			
21. Removal of snow.....			
22. Medical.....			12 50
23. Veterinary.....		33 45	
24. Blacksmith.....		1,684 74	
27. Testing materials and supplies.....		80 00	42 72
28. Expert and architect.....			
29. Stenographic, copying and indexing.....			
32. Towing.....			89 60
35. Fees, service of venires, etc.....	17 00	33 00	
36. Boiler inspection.....		25 00	
37. Photographic and blueprinting.....	1 56	57 60	
39. General plant.....	77 55	10,170 10	31,648 66
40. Harness, etc., repairs.....		26 95	
41. Horseshoeing and clipping.....		329 60	
C. EQUIPMENT:			
2. Machinery.....		93 42	
3. Electrical.....			10 75

the Several Services by Items of the Segregated Budget,
to January 31, 1917.

Lighting.	Paving.	Sanitary.	Street Cleaning.	Sewer.	Water.	Totals.
\$5,467 86	\$587,986 09	\$419,816 25	\$369,686 82	\$201,187 83	\$474,961 72	\$2,529,549 97
.....	.....	.....	.....	.....	.....	8,273 34
390 00	16,539 09	6,668 40	35 092 74	3,880 46	11,916 87	76,325 09
.....	.....	1,000 00	69 00	298 45	144 85	2,882 18
20 00	483 64	74 80	204 58	356 42	474 71	2,021 19
.....	65 28	17 30	17 00	4 20	313 18	548 08
15 80	988 07	18 60	3 80	920 13	3,400 62	6,085 47
.....	39 99	7 83	1,189 84	5 48	216 70	1,791 21
.....	33,725 50	160,326 83	88,400 40	623 92	571 50	286,735 15
.....	.....	.....	.....	105 31	.....	105 31
.....	1,568 57	4,734 33	537 57	2,480 54	983 46	22,946 21
736,736 19	.....	.....	.....	.....	.....	736,736 19
.....	2,278 71	1,020 00	6,358 12	.....	1,808 48	11,966 41
.....	.....	.....	.....	.....	12 50	108 50
53	1,644 74	939 40	671 23	787 87	1,469 06	6,050 69
375 25	3,256 21	3,952 01	3,758 76	1,258 69	3,599 31	17,987 46
.....	1,409 67	2,667 34	8,932 15	678 58	989 84	14,677 58
.....	456 39	1,044 00	1,706 25	121 00	32 60	3,360 24
.....	130 00	87 00	96 00	32,848 80	27 84	33,243 06
.....	.....	122,118 53	.....	151 75	.....	122,294 85
.....	157 20	141,191 55	1,010 25	.....	.....	142,359 00
.....	48,500 07	.....	.....	.....	.....	48,500 07
.....	60 29	75 00	86 50	35 00	75 28	344 57
.....	330 00	623 40	288 57	101 67	293 38	1,670 47
.....	935 33	1,147 94	351 35	241 61	36 80	4,397 77
.....	557 00	.....	170 00	195 00	1,408 16	2,452 88
24,438 95	.....	.....	.....	12 60	285 00	24,736 55
2,167 39	.....	.....	.....	.....	.....	2,167 39
.....	60 55	.....	.....	335 00	.....	485 15
.....	571 00	21 00	620 40	131 00	187 40	1,580 80
.....	70 00	.....	.....	5 00	10 00	110 00
.....	45 50	.....	47 50	.....	26 78	178 94
2,421 06	9,316 59	595 29	4,292 34	3,747 21	31,069 01	93,337 81
.....	315 45	.....	326 85	11 10	87 50	767 85
.....	4,186 60	3,244 15	3,396 61	1,006 73	1,162 41	13,326 10
.....	152 00	.....	349 00	3,676 25	57 60	4,328 27
.....	.....	.....	.....	.....	92 55	103 30

Expenditures Under the Maintenance Appropriation of the

	Central.	Bridge.	Ferry.
C. EQUIPMENT:			
4. Motor vehicles.....	\$527 77	\$619 37	.....
5. Motorless vehicles.....	.....	.....	.....
6. Stable.....	.....	38 99	.....
7. Furniture and fittings.....	.....	123 56	\$9 31
9. Office.....	.....	.....	.....
11. Marine.....	.....	.....	465 20
13. Tools and instruments.....	.....	535 50	1,275 33
14. Live stock.....	.....	.....	.....
16. Wearing apparel.....	.....	8 91	.....
17. General plant.....	.....	218 74	130 18
D. SUPPLIES:			
1. Office.....	2,885 59	1,010 20	882 48
2. Food and ice.....	.....	103 41	47 12
3. Fuel.....	.....	2,345 69	54,890 04
4. Forage and animal.....	.....	1,171 09	.....
5. Medical, surgical, laboratory.....	.....	.....	.....
7. Veterinary.....	.....	.....	.....
8. Laundry, cleaning, toilet.....	4 10	52 54	575 16
10. Agricultural.....	.....	.....	.....
11. Motor vehicle.....	338 15	559 24	.....
13. Chemicals and disinfectants.....	.....	1 50	49 50
16. General plant.....	.....	1,397 70	3,319 70
E. MATERIALS:			
1. Building.....	.....	317 23	38 04
2. Highway.....	.....	.....	.....
3. Bridges.....	.....	19,950 16	.....
4. Ferries.....	.....	.....	4,880 45
5. Sewer.....	.....	.....	.....
6. Water.....	.....	.....	.....
9. Machinery.....	.....	482 10	.....
10. Electrical.....	.....	155 44	301 44
11. Marine.....	.....	.....	.....
13. General plant.....	.....	170 03	.....
F. SPECIAL ITEMS:			
2. Damages.....	.....	.....	.....
7. Pensions and annuities.....	.....	5,288 97	6,985 60
11. Workingmen's compensation.....	.....	.....	.....
12. Contracts for construction where money is derived from taxes as per Schedule B....	.....	16,074 98	.....
Totals.....	\$74,206 04	\$296,793 04	\$303,917 18

Several Services by Items of the Segregated Budget.— *Concluded.*

Lighting.	Paving.	Sanitary	Street Cleaning.	Sewer.	Water.	Totals.
\$162 17	\$1,372 01	\$2,756 42	\$1,404 47	\$1,097 61	\$4,853 46	\$12,793 28
.....	2,081 50	1,385 12	1,559 00	18 10	.....	5,043 72
.....	1,202 99	79 35	518 72	122 48	326 74	2,289 27
.....	.....	.....	.....	.....	28 76	161 63
.....	85 80	.....	33 25	.....	1,253 69	1,372 74
.....	.....	.....	.....	.....	.....	465 20
25	4,370 59	1,092 33	3,752 05	908 69	42,013 43	53,948 17
.....	700 00	2,112 50	2,837 50	2,005 00	325 00	7,980 00
.....	203 54	17 74	1,303 11	642 78	223 96	2,400 04
.....	71 88	180 00	449 52	2,422 26	283 28	3,755 86
100 44	4,558 40	1,202 12	1,069 61	1,959 20	6,962 70	20,630 74
.....	139 08	58 25	46 52	36 42	36 38	467 18
.....	6,295 56	1,837 82	365 54	26,331 77	3,196 62	95,263 04
.....	23,861 93	46,645 85	40,019 57	5,065 39	9,998 90	126,762 73
.....	.....	.....	.....	5 78	.....	5 78
.....	112 77	183 74	96 02	.....	108 37	500 90
.....	124 51	.....	43 77	140 72	89 41	1,030 21
.....	.....	.....	.....	41 10	.....	41 10
114 08	1,882 26	1,816 60	3,328 79	1,197 33	2,792 57	12,029 02
.....	95 20	89 95	85 65	112 70	27 00	461 50
.....	1,165 79	933 13	2,152 76	2,026 37	4,626 66	15,622 11
.....	813 05	.....	189 44	1,247 32	694 88	3,299 96
.....	167,604 09	.....	59,049 61	.....	.....	226,653 70
.....	.....	.....	.....	.....	.....	19,950 16
.....	.....	.....	.....	.....	.....	4,880 45
.....	.....	.....	.....	3,290 71	.....	3,290 71
.....	.....	.....	.....	.....	195,790 11	195,790 11
.....	1 00	.....	8 37	.....	.....	491 47
.....	26 00	14 62	.....	.....	542 86	1,040 36
.....	.....	.....	.....	211 73	.....	211 73
.....	5,210 26	13,180 86	6,461 13	.....	1,644 87	26,667 15
.....	.....	.....	.....	.....	3,866 05	3,866 05
360 00	43,336 80	17,887 62	16,829 01	16,873 68	34,414 73	141,976 41
.....	2,765 70	6,573 89	2,894 30	1,234 29	1,824 30	15,292 48
.....	.....	.....	.....	.....	66,183 80	82,258 78
\$772,769 97	\$983,910 24	\$969,438 86	\$672,160 84	\$322,199 03	\$917,823 64	\$5,313,218 84

**Financial Statement of the Public Works Department, February 1, 1916, to
January 31, 1917.— Maintenance.**

DIVISION AND SERVICE.	Appropriations, 1916-17.	Transfers To.	Transfers From.	Total Credits.	Expenditures, 1916-17.	Balances, January 31, 1917.
Central Office.....	\$74,725 00	.....	.....	\$74,725 00	\$74,206 04	\$518 96
Bridge Service.....	312,247 99	.....	\$5,801 43	306,446 56	296,793 04	9,653 52
Ferry Service.....	298,115 75	\$5,801 43	.....	303,917 18	303,917 18	
Lighting Service.....	779,491 36	.....	3,875 70	775,615 66	772,769 97	2,845 69
Paving Service.....	981,594 54	2,315 70	.....	983,910 24	983,910 24	
Sanitary Service.....	963,488 76	5,950 12	.....	969,438 88	969,438 86	02
Street Cleaning and Oiling Service.....	677,178 76	.....	4,450 12	672,728 64	672,160 84	567 80
Sewer Service.....	323,625 20	60 00	.....	323 685 20	322,199 03	1,486 17
Water Service.....	939,700 16	.....	.....	939,700 16	917,823 64	21 876 52
Totals.....	\$5,350,167 52	\$14,127 25	\$14 127 25	\$5,350,167 52	\$5,313,218 84	\$36,948 68

NOTE.— See next page for items of expenditures on segregated appropriations.

The expenditures under the several appropriations for the year 1916-17 were as follows:

DIVISION SERVICE.	Current Expenses.	Special Appropriations.	Total Expenditures.	Balances, January 31, 1917.
Central Office.....	\$74,206 04	.....	\$74,206 04	\$518 96
Bridge Service.....	296,793 04	\$68,177 24	364,970 28	124,757 66
Ferry Service.....	303,917 18	352 77	304,269 95	1,775 00
Lighting Service.....	772,769 97	.....	772,769 97	2,845 69
Paving Service.....	983,910 24	472,020 90	1,455,931 14	364,516 25
Sanitary Service.....	969,438 86	1,298 50	970,737 36	15,271 68
Street Cleaning and Oiling Service.....	672,160 84	.....	672,160 84	567 80
Sewer Service.....	322,199 03	1,051,074 18	1,373,273 21	348,740 73
Water Service.....	917,823 64	47,868 21	965,691 85	109,022 71
Strandway and Old Harbor Improvement.....	.....	5,124 42	5,124 42	593,875 58
High Pressure Fire Service..	.....	63,126 30	63,126 30	344,975 73
Totals.....	\$5,313,218 84	\$1,709,042 52	\$7,022,261 36	\$1,906,867 79

Comparative Table Showing Cost of Maintenance of the Street Department * and Public Works Department Since 1907.

Division and Service.	1907-08.	1908-09.	1909-10.	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.
Central Office.....	.....	.....	\$22,518 63	\$23,627 76	\$72,943 26	\$77,515 65	\$80,159 50	\$74,592 01	\$70,618 59	\$74,206 04
Bridge.....	\$199,342 12	\$180,273 01	198,852 71	201,995 00	274,876 76	268,959 44	271,423 04	283,066 41	269,283 23	277,847 65
Boston and Cambridge Bridges....	11,230 57	18,524 29	18,464 72	22,006 57	21,055 26	17,183 87	17,744 48	18,645 52	17,765 44	18,945 39
Ferry.....	294,357 82	249,068 39	222,101 10	235,920 63	247,628 07	269,016 52	277,727 39	293,671 43	277,048 47	303,917 18
Lighting.....	840,016 93	809,510 06	719,574 91	710,294 84	726,967 18	768,779 08	795,880 53	753,811 73	739,599 62	772,769 97
Paving.....	831,113 67	775,838 06	1,089,247 94	1,178,546 90	1,162,660 29	1,236,686 29	1,361,082 17	1,223,364 69	1,029,374 44	802,150 73
Removal of snow....	144,117 96	58,143 37	131,357 56	112,623 21	124,961 68	106,691 07	64,007 49	165,105 19	131,142 57	303,570 39
Sanitary.....	790,243 78	745,200 90	637,255 93	723,249 64	730,292 62	790,809 01	925,318 56	1,017,452 66	1,042,315 06	969,438 86
Sewer.....	402,389 90	351,162 41	301,145 94	312,541 05	325,508 86	378,873 18	387,120 67	362,672 07	339,446 62	322,199 03
Street Cleaning.....	501,688 67	419,275 91	353,550 33	370,602 81	408,571 72	454,623 71	492,324 45	472,730 69	489,959 90	428,999 28
Street Watering and Oiling.....	152,235 45	154,679 90	170,728 75	160,543 93	163,036 26	198,993 93	228,511 50	174,312 00	139,744 97	121,450 68
Water.....	.....	.....	.....	.....	822,377 46	835,072 00	899,338 91	894,170 14	904,135 19	917,823 64
Totals.....	\$4,166,736 87	\$3,761,676 30	\$3,864,798 52	\$4,051,952 34	\$5,080 879 42	\$5,403,203 75	\$5,800,638 69	\$5,733,594 54	\$5,450,434 30	\$5,313,218 84

* Engineering and Water Departments were consolidated into the Public Works Department February 1, 1911.

REVENUE.

*Collected by City Collector on Account of the Public Works
Department (Maintenance Account) and Credited
to General Revenue, as per Collector.*

Bridge Service:

Town of Milton on account of Granite Avenue Bridge	\$677 25	
Repairs to Albany Street Bridge, over Boston & Albany Railroad,	687 31	
Sale of shanty	17 00	
Labor and materials for repairs	10 00	
Rent	1,265 07	
	<hr/>	\$2,656 63

Ferry Service:

Tolls	\$93,624 96	
Headhouse privileges	600 00	
Rents	464 00	
Sale of old material	594 78	
Commission on telephone stations,	53 64	
Cleaning telephone booths	44 00	
Damage to boat	25 50	
Free use of ferries, July 4	1 00	
	<hr/>	95,407 88

Lighting Service:

Lighting Cambridge Bridges	\$2,531 35	
	<hr/>	2,531 35

Paving Service:

Permits	\$27,431 13	
Assessments on abutters for edge- stones and sidewalks	16,516 50	
Labor and materials furnished	9,884 95	
Services of inspectors	4,326 00	
Labor and materials furnished on street openings	3,724 70	
Sale of old material	1,866 52	
Removing snow from sidewalks in front of cemeteries	500 00	
Rent	180 00	
Commonwealth of Massachusetts, horse killed	125 00	
Board of horse	31 00	
Sale of old barrels	23 50	
Sale of old cobblestones	3 50	
Sale of gasolene	1 80	
Refund on bond	1 43	
	<hr/>	64,616 03

Carried forward \$165,211 89

PUBLIC WORKS DEPARTMENT.

19

<i>Brought forward</i>		\$165,211 89	
Sanitary Service:			
Sale of tickets for collection of commercial waste	\$57,548 05		
Sale of manure (all services)	1,647 91		
Rent of dumping scow	310 00		
Sale of old material	148 81		
Labor and materials, furnished	80 08		
Commonwealth of Massachusetts, horse killed	50 00		
Sale of scow	10 00		
Sale of wagon	5 00		
		59,799 85	
Street Cleaning Service:			
Removal of dirt, farmers market,	\$898 52		
Rent of stable	450 00		
		1,348 52	
Sewer Service:			
Disposal of sewage	\$6,423 73		
Entrance fees	3,479 44		
Labor and material furnished	2,469 95		
Sale of old materials	1,086 59		
Sewer assessments, Hyde Park	214 20		
Sale of gasolene	105 74		
Sewer assessments	81 77		
Damage to wagon	79 75		
Sale of wagon	10 00		
Sale of old building	10 00		
Rent	10 00		
Refund on freight charges	84		
		13,972 01	
Water Service:			
Water rates	\$3,037,974 66		
Labor and materials, service pipes,	30,611 24		
Labor and materials, elevator and fire pipes	27,490 71		
Fees for summonses, overdue rates	3,746 25		
Labor and materials furnished, repairs	3,275 08		
Sale of materials	2,533 27		
Interest on bank deposits	1,059 38		
Extension of main pipe	905 97		
Sale of old material	855 53		
Off and on for non-payment	672 00		
Board of horses	121 00		
Testing meters	68 12		
Sale of automobile	35 00		
Miscellaneous	1 00		
		3,109,349 21	
		<u>\$3,349,681 48</u>	

CONTRACTS MADE BY PUBLIC WORKS DEPARTMENT, FROM FEBRUARY 1, 1916, TO JANUARY 31, 1917.
Hired Team Contracts, from February 1, 1916, to January 31, 1917.

District.	Awarded to	Single, per Day.	Double, per Day.	Extra Men, per Day.	Auto Trucks, per Day.	Paving Service.	Sanitary Service.	Sewer Service.	Street Cleaning Service.	Total.
No. 1, South Boston and Dorchester North ¹ .	Jeremiah J. McCarthy Com- pany.	\$3 50	\$3 50	\$2 50	\$20 00	\$5,536 13	\$8,182 80	.....	\$906 26	\$14,625 19
No. 2, East Boston and Breed's Island ¹ .	Edward J. McHugh, Jr.	5 00	2 25	2 00	14 00	2,052 50	.....	\$10 00	224 00	2,286 50
No. 3, Charlestown ¹ .	Northern Construction Com- pany.	5 00	2 00	2 50	35 00	.....	5,429 56	.....	953 75	6,383 41
No. 4, a, Brighton North ² .	A. J. & G. H. McMurtry. . .	5 25	2 75	2 25	15 00	1,486 96	.....	13 13	.....	1,500 09
No. 4, b, Brighton South ¹ .	Bernard Malone	5 25	2 75	2 25	15 00	1,567 14	.....	.....	.....	1,582 14
No. 5, West Roxbury ⁷ .	M. McGinnis	4 45	2 65	2 50	25 00	5,832 98	12,829 71	26 93	.....	13,691 62
Nos. 6-9, Dorchester and Ashmont ¹ .	John D. Lyons	4 80	3 00	2 00	20 00	2,705 30	.....	146 10	.....	2,851 40
No. 7, Roxbury South and Jamaica Plain ¹ .	Charles J. Jacobs Company	5 00	1 50	2 50	.....	3,683 75	23,350 07	.....	1,824 38	25,858 20
No. 8, South End and Roxbury North ¹ .	Northern Construction Com- pany	4 85	2 10	2 50	35 00	7,024 04	47,844 41	185 59	8,045 30	63,100 34
No. 10, North and West Ends and Back Bay ¹ .	Northern Construction Com- pany.	3 60	3 30	2 50	35 00	1,913 25	16,467 00	.....	15,320 57	33,700 82
No. 11, Hyde Park ¹ .	George H. Noone.	5 00	3 00	2 50	20 00	190 00	.....	.....	.....	190 00

¹ Advertised and awarded to lowest bidder.
² Advertised and awarded to lowest bidder.
³ Advertised and awarded to second lowest.
⁴ Advertised and awarded to third lowest.
⁵ Advertised and awarded to fourth lowest.
⁶ Advertised and awarded to fifth lowest.
⁷ Advertised and awarded to second lowest.

on singles.

BRIDGE AND FERRY DIVISION.—BRIDGE SERVICE. Bridge Work.

PUBLIC WORKS DEPARTMENT.

21

Contract.	Awarded to	Dated	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
¹ Building a footbridge at Cove street, East Boston.	The Boston Bridge Works, Inc.,	Feb. 2, 1916.	Completed Oct. 5, 1916..	\$8,626 00	\$6,702 05
¹ Building a footway at Ainworth street, West Roxbury.	Charles J Jacobs Company ..	Mar. 15, 1916	Completed Nov. 18, 1916...	5,173 75	5,743 14
¹ Building a footbridge at Wordsworth street, East Boston	Daniel Marr & Son Company ..	Mar. 21, 1916.	Completed Nov 11, 1916...	2,210 00	2,285 60
^{1, 2} Reconstruction of Malden Bridge and building the masonry piers.	Hugh Nawn Contracting Com- pany.	Mar. 30, 1916.	Unfinished ..	141,557 51	57,558 43
^{2, 3} Structural steel work, mechanical and electrical equipment for the highway draw span of the Malden Bridge.	McClintic-Marshall Company..	May 20, 1916.	Unfinished ..	67,630 00	Nothing.
¹ Replanking sidewalk Chelsea Bridge, over Boston & Maine Railroad, between Chelsea Bridge South and Chelsea Bridge North.	W. S. Rendle.....	Aug. 4, 1916.	Completed Oct. 7, 1916.....	1,348 20	\$1,408 12
¹ Furnishing and installing machinery for turning draw, Dover Street Bridge.	R. & S. Machine Company.....	April 16, 1916.	Completed July 13, 1916....	1,225 00	1,385 97
¹ Installing navigation lights, Broadway Bridge	Barnes-Pope Electric Company,	Mar. 8, 1916	Completed April 6, 1916....	355 00	355 00
¹ Making alterations to air tanks for drawbridge ..	R. & S. Machine Company.....	Aug. 9, 1916.	Completed Sept. 22, 1916..	515 00	537 00
¹ Rebuilding easterly sidewalk, Charlestown Bridge .	W. A. Mutfeldt Company.....	Sept. 5, 1916.	Completed Dec 9, 1916....	1,691 00	1,701 68
¹ Furnishing and installing electrical appliances and rebuilding the operating house at Dorchester Avenue Drawbridge	Carbale-Connor Company.....	Sept. 20, 1916.	Unfinished.....	767 00	Nothing.
¹ Repaving with wood blocks Huntington Avenue Bridge, over Boston & Albany Railroad.	Central Construction Com- pany	Sept. 20, 1916.	Completed Dec. 11, 1916..	2,535 00	\$2,535 00
¹ Cleaning and painting Broadway Bridge, over Fort Point channel.	Maurice M. Devine....	Sept. 30, 1916.	Unfinished.....	5,900 00	4,914 70
¹ Repairing end lifts, Northern Avenue Drawbridge..	R. & S. Machine Company ...	Oct. 3, 1916.	Completed Nov. 10, 1916..	1,185 00	1,395 83
² Repairing machinery, Charlestown Bridge draw....	R. & S. Machine Company.....	Oct. 16, 1916	Completed Nov. 6, 1916....	147 00	147 00
okline avenue, over the Boston ¹ i, Roxbury floor of draw span, Chelsea	Public Service Commission .	July 11, 1916.			
reconstructing new draw, Malden	Michael S. Kalliber.....	Nov. 10, 1916.	Completed Dec. 7, 1916....	2,625 00	3,095 20
Bridge.	Boston Elevated Railway Com- pany.	Mar. 16, 1916.			

¹ Advertisd and awarded to lowest bidder.

² Invitation bids, awarded to lowest bidder.

³ Paid by Boston Elevated Railway Company.

BRIDGE AND FERRY DIVISION.—FERRY SERVICE.
Ferry Work.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
¹ Teaming coal from coal pockets and delivering same to ferryboats.	Edward J. McHugh, Jr.....	Feb. 1, 1916.	Completed Jan. 31, 1917...	25 cents ton. (2,000 lbs.)	\$3,058 52
^{2, 3} Weighing and vending machines in the ferry houses,	Edward E. Adams.....	Mich. 1, 1916.	Completed Jan. 31, 1917...	\$500 00	Nothing.
¹ Furnishing and installing copper and lead piping, ferryboat "Noddle Island."	I. Young & Co.....	Mich. 20, 1916.	Completed May 10, 1916...	542 00	\$542 00
⁴ Expressing between the North and South Ferries and the repair shop.	Edward J. McHugh, Jr.....	Mich. 24, 1916.	Completed Jan. 31, 1917...	21 00 (per month.)	197 11
¹ Repairing wooden frames, etc., ferryboat "Hugh O'Brien."	James E. Quirk.....	July 21, 1916.	Completed Aug. 18, 1916...	4,968 31	4,968 31
¹ Repairing wooden end, etc., ferryboat "Noddle Island."	James E. Quirk.....	Sept. 19, 1916.	Completed Oct. 25, 1916...	3,320 00	3,320 00
¹ Repairing hulls of ferryboats "General Hancock," "General Sumner" and "D. D. Kelly."	McKie Shipbuilding Company..	Nov. 21, 1916.	Completed Jan. 6, 1917....	3,937 00	3,937 00
¹ Repairing hull of ferryboat "Governor Russell"....	Boston Shipbuilding Company..	Jan. 22, 1917.	Unfinished.....	340 00	Nothing.

¹ Advertised and awarded to lowest bidder. ² Advertised and awarded to highest bidder. ³ Paid to city. ⁴ Only bid; not advertised.

STRANDWAY AND OLD HARBOR IMPROVEMENT.

Amount Expended in 1918.	Nothing.
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 CONTINUED

 1 Dredging, filling, sewerage
 Strandway and old harl
 Boston.

1 Advertised and awarded to lowest bidder.

HIGHWAY DIVISION.— LIGHTING SERVICE.
Contracts in Force Made in Previous Years.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
^{1, 3, 4, 5} Furnishing gas for street lighting purposes for a period of ten years from April 1, 1914, until March 31, 1924, inclusive.	Boston Consolidated Gas Company.....	March 19, 1914.	Unfinished.....	.....	\$196,865 42
^{1, 3, 4, 5, 6} Lighting the streets, parks and alleys (except streets in Charlestown and Hyde Park) with gas for a period of ten years from April 1, 1914, until March 31, 1924, inclusive.	Boston Consolidated Gas Company.....	March 19, 1914.	Unfinished.....	.....
^{1, 3, 7} Lighting the streets, parks and alleys with electricity (except streets in Charlestown) and including Charlestown if said company shall purchase the electric distribution system located therein) for a period of ten years, from December 7, 1914, until December 6, 1924, inclusive.	The Edison Electric Illuminating Co....	Dec. 7, 1914.	Unfinished.....	.....	505,396 74

² \$32,652.66 paid to city, this amount representing what the city has been charged in excess of what it would have to pay for the period from July 1, 1914, to December 6, 1914, inclusive, had the prices named in schedule F of the new contract with a 10 per cent discount been in effect from July 1, 1914.

³ Agreement made July 21, 1914, that prices for gas lamps outside of contract be as follows: Triple burner lamps, per annum, \$45; fire alarm signal lamps, \$21.

⁴ Annual rates paid for gas lamps. Single burner: For gas.....\$9
Double burner: For gas.....\$18
For lighting and care.. 15

⁵ Only bid not advertised.

⁶ Contracts may be terminated on April 1, 1919, if City Council votes and Mayor approves.

⁷ If rate to regular consumers is reduced to a price less than 80 cents per M. a rebate will be made to the city at the rate of 12 cents per lamp per year for each 1 cent the price is so reduced below 80 cents per M.

⁸ Lighting rates for the electric lamps are as follows:

Total.....	\$21
Total.....	\$33

DESCRIPTION OF LAMP.	Fixed Costs per Lamp per Year.	Running Costs per Lamp Hour.	DESCRIPTION OF LAMP.	Fixed Costs per Lamp per Year.	Running Costs per Lamp Hour.
40 candle power Inc. lamp.....	\$10 80	1½ cent	320 candle power Inc. lamp.....	\$36 00	1½ cents
60 candle power Inc. lamp.....	12 00	1½ cent	400 candle power Inc. lamp.....	42 00	1½ cents
80 candle power Inc. lamp.....	14 00	1½ cent	425 watt A. C. arc lamp.....	36 00	1½ cents
100 candle power Inc. lamp.....	18 00	1½ cent	800 candle power Magnetite 500 watt D. C. arc lamp.....	36 00	1½ cents
200 candle power Inc. lamp.....	25 00	1 cent	1,600 candle power Thoran 500 watt D. C. arc lamp.....	42 00	3½ cents

A discount of 10 per cent is allowed from above rates.
A deduction at the rate of 1 cent per hour for lamps of 100 candle power or less and 5 cents per hour for all other lamps is allowed for all outages.

For further detail, see Report of Lighting Service.

HIGHWAY DIVISION.—PAVING SERVICE.
* Artificial Stone Sidewalks.—Rebate.

CONTRACTOR.	Dated.	Contract Completed.	Price per Square Foot.	Amount Expended in 1916.
D. M. Biggs & Company.....	March 21, 1916.....	January 31, 1917.....	\$0 06	\$763 20
William J. Rafferty & Company.....	March 21, 1916.....	January 31, 1917.....	06	440 10
John Kelly Company.....	March 21, 1916.....	January 31, 1917.....	06	65 37
Simpson Brothers Corporation.....	March 21, 1916.....	January 31, 1917.....	06	76 98
John Varnerin.....	March 21, 1916.....	January 31, 1917.....	06	22 08
Charles J. Jacobs Company.....	March 27, 1916.....	January 31, 1917.....	06	777 90
West Roxbury Trap Rock Company.....	March 27, 1916.....	January 31, 1917.....	06	
Wilson & Tomlinson.....	March 27, 1916.....	January 31, 1917.....	06	209 34
Coleman Brothers.....	March 27, 1916.....	January 31, 1917.....	06	
Jeremiah J. Sullivan.....	March 27, 1916.....	January 31, 1917.....	06	242 42
George M. Crowell Company.....	March 31, 1916.....	January 31, 1917.....	06	533 46
Hervey F. Armington.....	March 31, 1916.....	January 31, 1917.....	06	471 96
Connolly & Diamond.....	March 31, 1916.....	January 31, 1917.....	06	577 38
W. A. Murtfeldt Company.....	April 11, 1916.....	January 31, 1917.....	06	1,288 68
Frank P. Rossano.....	April 11, 1916.....	January 31, 1917.....	06	799 02
Adams Pond Company.....	April 11, 1916.....	January 31, 1917.....	06	1,752 86
John McCourt Company.....	April 13, 1916.....	January 31, 1917.....	06	436 26

Walter H. Preble Company.....	April 17, 1916.....	January 31, 1917.....	06	
J. C. Coleman & Sons Company.....	April 17, 1916.....	January 31, 1917.....	06	232 80
Martino DeMatteo.....	April 22, 1916.....	January 31, 1917.....	06	256 86
W. J. Grosvenor & Co.....	April 24, 1916.....	January 31, 1917.....	06	118 32
Mowatt Construction Company.....	April 27, 1916.....	January 31, 1917.....	06	674 44
C. W. Dolloff & Co.....	April 27, 1916.....	January 31, 1917.....	06	
Thomas J. Hind.....	May 18, 1916.....	January 31, 1917.....	06	747 96
O'Neill Brothers.....	June 5, 1916.....	January 31, 1917.....	06	
Hardy & Streeter.....	June 5, 1916.....	January 31, 1917.....	06	21 80
Michael D. Russo.....	June 14, 1916.....	January 31, 1917.....	06	170 94
John Landis.....	June 20, 1916.....	January 31, 1917.....	06	747 60
Warren Brothers Company.....	June 22, 1916.....	January 31, 1917.....	06	1,160 10
W. J. Kelly Company.....	June 26, 1916.....	January 31, 1917.....	06	141 84
United States Construction Company.....	July 18, 1916.....	January 31, 1917.....	06	69 54
Keller Construction Company.....	August 2, 1916.....	January 31, 1917.....	06	318 48
Bernard W. Marcus.....	November 2, 1916.....	January 31, 1917.....	06	55 02
J. F. Carroll Construction Company.....	November 16, 1916.....	January 31, 1917.....	06	

* These walks are guaranteed by a surety company bond for five (5) years from date of completion and were laid on various public streets where the contractor had agreements with the abutters. The price, \$0.06 per square foot, is equivalent to the expense to the city for one half the cost of a brick sidewalk.

Artificial Stone Sidewalks.—Furnishing and Laying.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
1, 2 East Concord street, northerly side, from Harrison avenue 245 feet easterly; Stoughton street, feet from	Jeremiah J. Sullivan . . .	June 30, 1916.	Completed Aug. 1, 1916. . . .	\$978 50	\$1,003 09
1, 2 Harrison avenue, westerly side, from Kneeland street to Harvard street, city proper.	John McCourt Company . .	July 18, 1916.	Completed Aug. 17, 1916. . .	965 50	943 80
1, 2 Belvidere street, from Massachusetts avenue to Dalton street; Scotia street, from St. Cecilia street to Dalton street; St. Cecilia street, from Boylston street to Belvidere street, city proper; Stoughton street, southerly side, from 90 feet east of Columbia road to Stoughton Street place; Corbet street, from Norfolk street to Morton street, Dorchester; Florence street, from Ashland street to Poplar street, West Roxbury.	James Doherty	Aug. 19, 1916.	Unfinished	7,409 25	
1, 2 Huntington avenue, westerly side, and Falmouth street, easterly side, at the Christian Science Church park, city proper.	William J. Rafferty & Co.	Aug. 23, 1916.	Completed Sept. 28, 1916. . .	1,011 06	1,186 79
1, 2 Dorchester avenue, easterly side, near Richmond street, Dorchester.	D. M. Biggs & Co.	Sept. 9, 1916.	Completed Sept. 20, 1916. . .	403 70	369 96
1, 2, 3 Morton street, from N. Y., N. H. & H. R. R., Dorchester.	William J. Rafferty & Co.	Oct. 9, 1916.	Completed Dec. 1, 1916. . .	1,295 75	1,131 41

1, 1 Shirley street, southerly side, from Clifton street to Norfolk avenue; Norfolk avenue, westerly side, from Shirley street to Burrell street, Roxbury; Massachusetts avenue, easterly side, from Norway street about 67 feet northerly; Norway street, northerly side, from Massachusetts avenue about 113 feet easterly; Tremont street, easterly side, from Dover street about 89 feet northerly; Dover street, northerly side, from Tremont street about 58 feet easterly, city proper; Dorchester avenue, easterly side, at Nos. 1642, 1644 and from 1682 to 1688, Dorchester.	V. Grande.....	Nov. 23, 1916.	Unfinished.....	3,739 05	759 30
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1 Advertisised and awarded to lowest bidder.
2 These sidewalks are guaranteed by a surety company bond for five (5) years from the date of completion.
3 Work done under chapter 393 of the Acts of 1906.

Sheet Asphalt Pavement.

Contract.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
1, 2 Bardwell street, from South street	Central Construction Company.	July 18, 1916	Unfinished.	(A) 9,300 cubic yards @ \$0.55 \$5,115.00	
				(B) 10 cubic yards @ 2.00 20.00	
				(C) 35 cubic yards @ 5.00 175.00	
				(D) 9,920 linear feet @ 0.17 1,686.40	
				(E) 744 linear feet @ 0.15 111.60	
				(F) 825 linear feet @ 0.12 99.00	
				(G) 45 square yards @ 0.75 33.75	
				(H) 83 square yards @ 0.50 41.50	
				(I) 66 square yards @ 1.50 99.00	
				(J) 60 square yards @ 1.25 75.00	
				(K) 49 square yards @ 1.50 73.50	
				(L) 43 square yards @ 1.25 53.75	
				(M) 21,490 square yards @ 1.58 33,964.20	
				(N) 82,480 square feet @ 0.114 9,591.40	
				(O) 350 square feet @ 0.15 52.50	
				(P) Removing trees, etc., 150.00	
				(Q) 150 square yards @ 0.60 90.00	
				\$51,506.60	\$18,472.91
1, 2 Brunswick street, from Blue Hill avenue to Normandy street; Centerville park, from Upland avenue to Bourneside street;	Central Construction Company.	July 28, 1916.	Unfinished.	(A) 11,273 cubic yards @ \$0.55 \$6,200.15	
				(B) 23 cubic yards @ 3.00 69.00	
				(C) 310 cubic yards @ 5.00 1,550.00	
				(D) 11,654 linear feet @ 0.18 2,097.72	
				(E) 721 linear feet @ 0.11 79.31	
				(F) 1,799 linear feet @ 0.10 179.90	
				(G) 15 square yards @ 0.65 9.75	
				(H) 252 square yards @ 0.40 100.80	
				(I) 62 square yards @ 1.40 86.80	
				(J) 194 square yards @ 1.25 242.50	
				(K) 162 square yards @ 1.50 243.00	
				(L) 198 square yards @ 1.20 237.60	
				(M) 27,645 square yards @ 1.60 44,232.00	
				(N) 96,202 square feet @ 0.124 12,026.25	
				(O) 1,375 square feet @ 0.14 192.50	
				(P) Removing trees, etc., 150.00	
				(R) 2,335 square yards @ 0.09 209.25	
1, 2 Brunswick street, from Blue Hill avenue to Normandy street; Centerville park, from Upland avenue to Bourneside street;					
avenue Normandy, Devon street, from Geneva avenue to Olney street; Lithgow street, from Talbot avenue to Wainwright street; Normandy street, from Intervale street to Devon street; Orchardfield street, from Dorchester avenue to Freeport street; Ripley road, from Harvard street to Vassar					

	Warren Brothers Company..	Sept. 9, 1916.	Unfinished		
street; Southwick street, from Neponset avenue to Freeport street, Theodore street, from Morton street 618 feet easterly; Upland avenue, from Park street to Malville avenue, Dor- chester; Cedar street, from	Appleton street, from Berkeley street to Columbus avenue; Blossom street, from Allen street to Fruit street; Boylston street, from Tremont street to Washington street, Chandler street to t street, t street, Blossom t street, o Fruit et, from et, Fruit street; Parkman street, from North Anderson street to North Grove street; West Canton street, it to pper; bany bury; west Broadway, from Dor- chester avenue to E street, South Boston.			(S) (T) (U) (V)	185 square yards @ 0 20 50 cubic yards @ 1 50 260 square yards @ 0 30 2,440 cubic yards @ 0 50 \$37 00 75 00 78 00 1,220 00
				(B) (C) (D) (E) (F) (H) (I) (L) (M) (N) (O) (U) (W) (X) (Y) (Z) (AA)	10 cubic yards @ \$1 50 10 cubic yards @ 2 00 300 linear feet @ 0 20 175 linear feet @ 0 17 7,955 linear feet @ 0 15 365 square yards @ 0 53 95 square yards @ 2 00 80 square yards @ 1 80 14,890 square yards @ 2 09 28,420 square feet @ 0 18 870 square feet @ 0 17 4,830 square yards @ 0 30 150 square yards @ 0 50 12,415 square yards @ 1 21 4,360 square yards @ 2 53 2,595 square yards @ 3 42 150 tons @ 2 00 \$15 00 20 00 60 00 29 75 1,193 25 204 05 190 00 144 00 31,120 10 4,547 20 147 90 1,449 00 75 00 15,022 15 12,338 80 8,874 90 300 00
					\$45,015 07
					\$26,720 80

¹ Advertised and awarded to lowest bidder.

Work done under chapter 393 of the Acts of 1906.

Sheet Asphalt Pavement.—Concluded.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
1, 2 Atkins street, from Washington street to Stratton street; Gaffney street, from Common-	Central Construction Company.	Oct. 9, 1916.	Unfinished.	(A) 24,465 cubic yards @ \$0.74 \$18,104 10	
				(B) 20 cubic yards @ 2 00 40 00	
				(C) 390 cubic yards @ 6 00 2,340 00	
				(D) 27,320 linear feet @ 0 23 6,283 60	
				(E) 2,481 linear feet @ 0 15 372 15	
				(F) 1,284 linear feet @ 0 15 192 60	
				(G) 56 square yards @ 0 70 38 50	
				(H) 185 square yards @ 0 50 92 50	
				(I) 210 square yards @ 1 00 236 00	
				(J) 245 square yards @ 1 50 367 50	
				(K) 70 square yards @ 1 50 105 00	
				(L) 215 square yards @ 1 40 301 00	
				(M) 44,895 square yards @ 2 05 92,034 75	
				(N) 201,395 square feet @ 0 14 29,705 76	
				(O) 1,620 square feet @ 0 14 238 95	
				(P) Removing trees, etc., 500 00	
				(Q) 5,950 square yards @ 0 60 3,570 00	
				(R) 30 square yards @ 0 30 9 00	
				(W) 15 square yards @ 0 50 7 50	
				(Y) 8,845 square yards @ 2 00 17,690 00	
				(Z) 35 square yards @ 4 00 140 00	
				(BB) 24 linear feet @ 1 90 45 60	
				(CC) 1,300 linear feet @ 0 45 585 00	
				(DD) 44 linear feet @ 2 00 88 00	
				\$173,187 51	\$2,704 90
East Boston; Berley road, from Washington street to Florence street; Kenton road, from Washington street 800 feet southeasterly; Larue street, from Harvard street 650 feet northwesterly; Perham street, from Vermont street to New York, New Haven & Hartford Railroad; Richmond street,					

from Centre street to Montview street; Havill street, from Park street to Stratford street; Belwyn street, from Farquhar street 1,174 feet northeasterly West Roxbury	Advertised and awarded to the lowest bidder.	Work done under chapter 393 of the Acts of 1906.
(A) Earth excavation.	(B) Excavation for water boxes and hydrants.	(C) Rock excavation.
(D) Straight edgestones hauled and set.	(E)	(F)
(G)	(H)	(I)
(J)	(K)	(L)
(M)	(N)	(O)
(P)	(Q)	(R)
(S)	(T)	(U)
(V)	(W)	(X)
(Y)	(Z)	(AA)
(BB)	(CC)	(DD)

EXPLANATION OF LETTERS.

macrete base.

as.

macrete base.

macrete and concrete base and guaranteeing same for a period of five years after completion.

macrete for a period of five years after completion.

macrete for a period of five years after completion.

Loam furnished.

level joints.

concrete binder and asphalt wearing surface on macadam foundation and guaranteeing same for a period of five

pavement, including concrete base, and guaranteeing same for a period of five years after completion.

pavement and guaranteeing same for a period of five years after completion.

macrete curb and guaranteeing same for a period of five years after completion.

Granite Block Pavement.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
1, 2 Alexander street, from Bird street about 527 feet northerly, Dorchester, 1 Batterymarch street, from Franklin street to Broad street; Beach street, from Harrison avenue to Atlantic avenue; Canal street, from Haymarket square to Causeway street; Clinton street, from Merchants row to Commercial street; Cross street, from Commercial street to Haymarket square; Devonshire street, from Adams square to Water street; Fulton street, from Blackstone street to Richmond street; Harrison avenue, from Kneeland street to Dover street; Haymarket square; Lincoln street, from Essex street to Beach street; McKinley street; Mercantile street, from South Market street to Richmond street; School street, from Tremont street to Washington street; Washington street, from Haymarket square to Elm street; Albany street, from Kneeland street to Boston & Albany Railroad Bridge; Albany street, from Dover street to Northampton street, city proper; Columbia road, from Edward Everett square to Dudley street; Dorchester avenue, from Savin Hill avenue to Freeport street, Dorchester.	James Doherty.....	June 16, 1916.	Unfinished.	\$7,472 75	\$6,170 04
	Bernard E. Grant.....	Aug. 26, 1916.	Unfinished.	362,364 70	90,636 02
1, 2 Anory street, from Centre street to Bradgon street; Washington street, from Morton street to Asticou road, West Roxbury.	James Doherty.....	Aug. 30, 1916.	Unfinished.	29,124 98	6,856 59

1 Advertised and awarded to lowest bidder.

2 Work done under chapter 393, Acts of 1906.

Excavating and Grading.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
1 Caledonian avenue, from Spring street about 210 feet southerly, West Roxbury.	Frank Drinkwater.....	Nov. 13, 1916.	Unfinished.	\$2,100 00	\$306 00

1 Advertised and awarded to lowest bidder.

Furnishing Filling.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
1 Morton street, from Norfolk street to Midland Division bridge, Dorchester	William J. Barry.	Sept. 12, 1916.	Unfinished.	\$1,035 00	\$802 04
Ralston street, from Dorchester avenue to Old Colony avenue, South Boston.	Frank J. Hannon.	Jan. 2, 1917.	Unfinished.	2,250 00	Nothing.

Bituminous Macadam Roadways.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
1, 2 Brock avenue, from Wabeno street to H. Wabeno street; from Bucknam street to Metropolitan avenue; from Wabeno street to Ethel street; from Ethel street to Colberg street; from Colberg street to St. Rose street; from St. Rose street to Caspian way, from Caspian way to Dewey avenue, from Dewey avenue to Hancock street, from Hancock street to Hallett street.	Martino DeMatteo.	Oct. 14, 1916.	Unfinished.	\$61,642 90	\$5,124 62

1 Adverted and awarded to lowest bidder.

2 Work done under chapter 393, Acts of 1906.

Artificial Stone Walks, Steps and Walls.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
1, 2 Crown path, from Claybourne street to Washington street, Dorchester.	James Doherty.....	April 25, 1916.	Completed Nov. 4, 1916....	\$2,839 26	\$2,839 26
1, 2 Wait street, from Hillside street to Sachem street, Roxbury.	James Doherty.....	April 27, 1916.	Completed Sept. 11, 1916...	2,549 25	2,621 60

1 Advertised and awarded to lowest bidder.

2 Work done under chapter 393, Acts of 1906.

Miscellaneous.

Contract.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
¹ stone sidewalks on any street which the maintenance guar-	Charles J. Jacobs Company.....	Feb. 3, 1916.	Completed Jan. 31, 1917....	\$1,210 00	\$535 10
² Erecting iron fence at subway under N. Y., N. H. & H. R. R. tracks at Roslindale station, West Roxbury.	P. J. Dinn & Co.....	March 7, 1916.	Completed May 23, 1916....	194 00	194 00
³ Repairing asphalt or bitulithic pavement in any street upon which the maintenance guaranty has expired.	Central Construction Company..	May 12, 1916.	Completed Jan. 31, 1917....	43,300 00	30,314 74
⁴ Sea walls and Haasam block pavement in Conder street, from Glendon street to East Eagle street, East Boston.	Bay State Dredging and Contracting Company.	May 22, 1916.	Completed Nov. 11, 1916....	17,348 85	17,121 79
⁵ Everton street, between Olney street and Geneva avenue, Dorchester. Removing trees.	John E. Gill.....	June 22, 1916.	Completed June 30, 1916....	350 00	350 00
⁶ Ru..... pavement in Dorchester long avenue and Hum-..... R.	T. A. Gillespie Company.....	Oct. 5, 1916.	Unfinished.....		
⁷ Relaying tar concrete sidewalks in Walcott street, northwesterly side, from the church property towards Lindsey street, Dorchester.	W. A. Mursfalt Company.....	Oct. 19, 1916.	Unfinished.....	275 00	0 00
Privilege to maintain slope of Bryant street, Roxbury.	N. Y., N. H. & H. R. R. Co....	Oct. 25, 1916.			
⁸ Erecting iron fence on wall, Medfield street, city proper.	P. J. Dinn & Co.....	Nov. 27, 1916.	Completed Dec. 16, 1916....	60 00	60 00

¹ Advertised and awarded to lowest bidder.² Only bid; not advertised.³ Work done under chapter 383, Acts of 1906.
⁴ This contract was made by the Transit Commission. The Public Works Department to pay part of the cost of relaying the granite block pavement with grout joints.

HIGHWAY DIVISION.— SANITARY SERVICE.
Collecting and Removing House Offal.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
¹ East Boston district.....	Hugh H. Cannon.....	Feb. 3, 1916..	Completed Jan. 31, 1917...	\$5,388 00	\$4,864 17
Brighton district.....	John A. & William Janee.....	Feb. 2, 1916..	Completed Jan. 31, 1917...	5,688 00	5,214 00
¹ West Roxbury district.....	Walter Griffin.....	Feb. 3, 1916..	Completed Jan. 31, 1917...	2,136 00	1,867 65
¹ Dorchester district.....	Bernard E. Grant.....	Feb. 2, 1916..	Completed Jan. 31, 1917...	23,328 00	21,022 25
^{1, 2} Hyde Park district.....	William P. Nickerson.....	Feb. 2, 1916..	Completed Jan. 31, 1917...	1,380 00	991 00

¹ Advertised and awarded to lowest bidder. ² Advertised and awarded to second lowest bidder.
² Contract assigned to Charles Tate, October 16, 1916, and he was paid \$230.

Collecting and Removing Ashes.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
¹ East Boston district.....	Berry & McCarthy.....	Feb. 2, 1916..	Completed Jan. 31, 1917...	\$10,678 80	\$7,887 02
¹ Brighton district.....	Joseph McGreevey.....	Feb. 2, 1916..	Completed Jan. 31, 1917...	13,794 00	8,139 81
¹ West Roxbury district.....	John J. Moore.....	Feb. 2, 1916..	Completed Jan. 31, 1917...	6,960 00	6,380 00
^{1, 2} Dorchester district.....	The Gore Company.....	Feb. 17, 1916..	Completed Jan. 31, 1917...	50,940 00	11,613 34
¹ Hyde Park district.....	John J. Moore.....	Feb. 2, 1916..	Completed Jan. 31, 1917...	3,480 00	3,190 00

¹ Advertised and awarded to lowest bidder. ² Contract assigned to American Fidelity Company July 3, 1916, and they have been paid \$27,063.24.

Miscellaneous.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
1, 4 Removing manure from the various stables and yards of the department.	J. N. Smith & Co.....	Jan. 29, 1916..	Completed Jan. 31, 1917....	* \$1 55	\$927 80
1 Furnishing combination street sprinkler, flushing and oil spreading motor trucks.	Bernard E. Grant.....	Feb. 3, 1916..	Completed Dec. 1, 1916....	† 18 50	12,684 07
2 Moving wagon shed, Gibson street yard, Dorchester.	T. Ahern's Sons.....	Aug. 30, 1916..	Completed Sept. 22, 1916....	200 00	200 00
3 Electric wiring, Ward street receiving station, Roxbury.	Oliver S. Grant & Co.....	Dec. 16, 1916..	Unfinished.....	385 00	Nothing.

1 Advertised and awarded to lowest bidder.
2 Advertised and awarded to highest bidder.

3 Only bid; not advertised.
4 Paid to city.

* Per horse per year.
† Per day.

Contracts in Force Made in Previous Years.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
Disposal of refuse for ten years.....	Boston Development and Sanitary Company.	Feb. 1, 1912...	Unfinished.....	\$1,432,000 00	\$140,000 00

HIGHWAY DIVISION.—STREET CLEANING AND OILING SERVICE.
Furnishing Carts for Watering and Oiling Streets.

District.	Awarded to	Dated.	Progress of Work.	Price per Cart per Day.		Amount Expended in 1916.
				Two-horse.	Three-horse.	
'No. 1, South Boston and Dorchester North.	Northern Construction Company.	March 8, 1916.	Completed Jan. 31, 1917...	\$4 80	\$7 00	\$3,519 80
'No. 2, East Boston and Breed's Island,	William Carr.....	March 8, 1916.	Completed Jan. 31, 1917...	5 00	6 00	642 50
'No. 3, Charlestown.....	J. P. O'Riorden.....	March 8, 1916.	Completed Jan. 31, 1917...	5 10	6 00	1,672 80
'No. 4a, Brighton North.....	A. J. & G. H. McMurtry.....	March 8, 1916.	Completed Jan. 31, 1917...	5 00	6 00	911 50
'No. 4b, Brighton South.....	Bernard Malone.....	March 8, 1916.	Completed Jan. 31, 1917...	5 00	6 00	949 00
'No. 5, West Roxbury.....	M. McGinnis & Co.....	March 8, 1916.	Completed Jan. 31, 1917...	5 21	6 50	2,534 13
'Nos. 6 and 9, Dorchester and Ashmont...	D. M. Biggs & Co.....	March 8, 1916.	Completed Jan. 31, 1917...	5 80	6 50	2,522 28
'No. 7, Roxbury South and Jamaica Plain.	Joseph Sprissler.....	March 8, 1916.	Completed Jan. 31, 1917...	5 00	6 00	4,032 39
'No. 8, South End and Roxbury North....	Joseph McGreevey.....	March 8, 1916.	Completed Jan. 31, 1917...	5 00	6 00	1,650 44
'No. 10, North and West Ends and Back Bay.	Northern Construction Company.	March 8, 1916.	Completed Jan. 31, 1917...	4 90	7 00	4,981 53
'No. 11, Hyde Park.....	Thomas H. Corrigan.....	March 8, 1916.	Completed Jan. 31, 1917...	4 75	4 75	840 39

¹ Advertised and awarded to lowest bidder.

Removing Snow and Ice.

District.	Awarded to	Dated.	Program of Work.	Estimated Cost.	Amount Expended in 1916.
Snow District No. 1.....	Central Construction Company..	Dec. 12, 1916.	Expires May 1, 1917..	\$0 43 per cubic yard.....	\$2,150 00
Snow District No. 2	Bernard E. Grant.....	Dec. 12, 1916.	Expires May 1, 1917	0 42 per cubic yard.....	521 01
Snow District No. 3.....	Bernard E. Grant.....	Dec. 12, 1916.	Expires May 1, 1917..	0 45 per cubic yard.....	800 33
Snow District No. 4	Bernard E. Grant.....	Dec. 12, 1916.	Expires May 1, 1917.....	0 38 per cubic yard.....	590 33
Snow District No. 5.....	Coleman Brothers.....	Dec. 12, 1916.	Expires May 1, 1917.....	0 49 per cubic yard.....	1,231 13
Snow District No. 6.....	Central Construction Company ..	Dec. 12, 1916.	Expires May 1, 1917.....	0 40 per cubic yard.....	1,588 40
Snow District No. 7.	Michael H. Loonie.....	Dec. 12, 1916.	Expires May 1, 1917.....	0 40 per cubic yard.....	1,561 40

¹Advertised and awarded to lowest bidder.

SEWER AND WATER DIVISION.—SEWER SERVICE.
Cleaning Catch-basins.

District.	Awarded to	Dated.	Progress of Work.	Price per Basin.	Amount Expended in 1916.
No. 1, north of Dover and Berkeley streets to the waterfront, East Boston and Charlestown.	John W. Collins.....	Feb. 1, 1916.	Completed Jan. 31, 1917.	North of Dover and Berkeley sts..... \$3 19 East Boston .. 2 40 Charlestown .. 2 50	\$8,689 67
No. 2, West Roxbury, Dorchester and Hyde Park.	Mark H. Lynch.....	Feb. 1, 1916.	Completed Jan. 31, 1917.	South of Dover and Berkeley sts..... \$3 75 South Boston.. 2 00 Brighton .. 2 00 West Roxbury .. 2 25 Dorchester..... 2 50 Hyde Park..... 1 00	
					10,970 50

¹ Advertised and awarded to lowest bidder.

Sewerage Works.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost as per Estimated Quantities, not including Materials Furnished by City.	Amount Expended in 1916.
Frankfort street, between Prescott street and Neptune road, Neptune road, between Bennington street and B., R. B. & L. R. R., East Boston.	James J. Coughlan Company..	Feb. 5, 1916.	Unfinished.....	\$32,886 40	\$34,881 08
St. Albans road, between Huntington avenue and Francis street, Roxbury	James L. Pierce.....	April 22, 1916.	Completed July 11, 1916.	476 35	551 54
Alexander street 635 feet south southerly; F street about	George J. Regan.....	April 27, 1916.	Completed June 7, 1916.....	637 60	2,098 26
Cummings road, between Corey road and Commonwealth avenue, Brighton.	George J. Regan.....	April 29, 1916.	Completed June 27, 1916.....	2,496 00	2,555 79
South End sewer improvement in Columbus avenue from Alley No 815 to Wellington street; Wellington street, from Columbus avenue to Alley No. 531, city proper	William Barrett & Co.....	April 29, 1916.	Completed July 27, 1916.....	3,964 46	6,607 23
Archdale road, westerly side, between Washington street and Whipple avenue, West Roxbury.	James L. Pierce... ..	April 28, 1916.	Completed July 22, 1916 .	639 00	1,868 43
Payson avenue, between Hancock and Glen-dale streets, Dorchester.	James L. Pierce... ..	May 10, 1916.	Completed June 19, 1916.....	761 20	846 32
Across Albany and East Dedham streets, between Albany and Thorn streets, city proper.	William Barrett & Co.....	May 11, 1916.	Completed Aug. 22, 1916.....	5,399 10	8,966 06
Loretto street, between Spring street and end of street, 460 feet northwesterly, West Roxbury.	James L. Pierce.....	May 20, 1916..	Completed Sept. 13, 1916.....	1,131 50	1,690 41

PUBLIC WORKS DEPARTMENT.

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Willow court, from Massachusetts avenue about 123 feet easterly from Field's court, Dorchester.	Michael H. Loomis.....	May 26, 1916.	Completed June 21, 1916.....	1,196 00	1,453 22
1 Rusby road, from Randolph road to Oakland street, Dorchester.	Antony Cafalo.....	May 26, 1916.	Completed July 7, 1916.....	844 00	2,656 51
1 Harold street, between Holworthy and Townsend streets; Holworthy street, from Harold street about 558 feet southeasterly, Roxbury.	Antony Cafalo.....	May 26, 1916.	Completed Jan. 11, 1917.....	4,799 95	4,412 29
1 Parham street, from Vermont street 310 feet northwest of Ivory street; Dent street brook conduit in Alder street, between Vermont street and private land; Vermont street, between Dent street brook conduit and Temple street; Winslow street, between Dent street brook conduit and Parham street, West Roxbury.	Antony Cafalo..	May 31, 1916.	Completed Nov. 15, 1916.....	11,738 25	15,724 91
1 Haydn and Brahma streets, between Nikisch avenue and Washington street, West Roxbury.	Louis Balbani.....	May 31, 1916.	Completed Sept. 19, 1916.....	3,189 20	3,647 19
1 South End avenue, between Shawmut street and Upton street; Upton street, between Shawmut street and Draper's lane, city proper.	M. H. Kelley.....	May 31, 1916.	Completed Aug. 31, 1916.....	1,186 40	1,450 07
1 Morton street, between Norfolk street and N. Y., N. H. & H. R. R., Midland Division; Westland avenue, between Norwell street and N. Y., N. H. & H. R. R., Dorchester.	George J. Regan.....	June 3, 1916.	Completed July 29, 1916.....	1,023 20	4,810 28
1 Glencoe street, between North Beacon and Garden streets, Brighton.	James L. Pierce.....	June 3, 1916.	Completed Nov. 2, 1916.....	1,934 10	1,957 63

1 Advertised and awarded to lowest bidder.

Sewerage Works.— Continued.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost as per Estimated Quantities, not Including Materials Furnished by City.	Amount Expended in 1916.
¹ Commonwealth avenue, between St. Lukes and Fordham roads; Fordham road, between Commonwealth and Brighton avenues, Brighton.	John J. Lane.....	June 5, 1916.	Completed July 28, 1916.....	\$3,456 20	\$5,139 44
¹ Canal street, between Market and Merimac streets; Sudbury street, between Haymarket square and Portland street, city proper.	William Barrett & Co.....	June 14, 1916.	Completed Oct. 18, 1916.....	11,372 75	17,237 67
¹ Foster street, from existing sewer 260 feet south of Washington street to 75 feet south- erly; Cleveland circle and Chestnut Hill avenue, between Beacon street and the Brookline line, Brighton.	Michael H. Loonie.....	June 16, 1916.	Completed Aug. 7, 1916.....	997 50	1,754 98
¹ Harvest street, between Willowwood and Lucerne streets; Train street, from 100 feet south of Boutwell street to Boutwell street, Dorchester; Rutledge road, from existing sewer about 160 feet westerly, Hyde Park.	George J. Regan.....	June 16, 1916.	Completed Oct. 23, 1916.....	3,103 70	6,817 67
¹ East Seventh street, between G and H streets, South Boston.	V. Grande.....	June 16, 1916.	Completed July 23, 1916.....	647 35	831 78
¹ Tremont entrance, southeasterly side, be- tween Louis Prang street and point 565 feet southeast, Roxbury.	Antony Cefalo.....	June 20, 1916.	Completed Nov. 2, 1916.....	7,364 70	16,644 31
¹ Westminster road, between Walnut park and Westminster avenue, Roxbury.	Anthony Baruffaldi.....	June 26, 1916.	Completed Aug. 6, 1916.....	1,108 85	2,188 80

PUBLIC WORKS DEPARTMENT.

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1 Gaffney street, between Commonwealth avenue and B & A R. and Gaffney street outlet, between Commonwealth avenue outlet near Cottage Farm bridge and Gaffney street, Brighton.	John J. Lane.	June 26, 1916.	Completed Nov. 23, 1916.....	4,282 70	10,003 55
1 Brookline avenue, between Audubon road and Jersey street, Roxbury.	Peter W. Hill.	June 27, 1916.	Unfinished.....	11,257 50	10,441 40
1 Cuffin street, between Tremont and Nonantum streets, Brighton.	Anthony Baruffaldi	June 27, 1916.	Completed Aug. 17, 1916.....	1,550 75	1,575 18
1 Patten street, between Wachusett and Bourne streets and outlet in Nathan road, West Roxbury.	William L. Dolan..	June 27, 1916.	Completed Sept. 20, 1916.....	2,777 90	3,450 42
1 Oriole street, between Emmons road and Bellevue street, West Roxbury.	Antony Cafalo.....	July 3, 1916.	Completed Sept. 5, 1916.....	1,015 00	1,194 80
1 Canterbury street, between Hyde Park avenue and N. Y., N. H. & H. R. R. Montvale street and outlet between Belgrade avenue and Belgrade street, West Roxbury.	Antony Cafalo....	July 3, 1916.	Completed Aug. 15, 1916.....	956 55	1,357 82
1 Orange st - - - - - streets; street at - - - - - between Orange and West Roxbury	Frank Drinkwater	July 7, 1916.	Completed Oct. 11, 1916.....	4,554 70	5,820 84
1 Private land, between Chelmsford and Franconia streets, Francenia street, between Adams and Charlemont streets, Dorchester	Antony Cafalo....	July 18, 1916.	Completed Sept. 21, 1916.....	1,426 00	1,537 71
1 La Grange street, between Linnet and Shaw streets, West Roxbury	William L. Dolan	July 20, 1916.	Completed Sept. 26, 1916 . . .	3,264 00	3,506 51
1 Colonial road, between Commonwealth avenue and Euston road, Brighton.	George J. Regan.. . . .	July 20, 1916.	Completed Aug. 14, 1916.....	465 20	1,487 80
1 Colon street, between Buckminster and Warren streets, Brighton.	George J. Regan.....	July 20, 1916.	Completed Sept. 16, 1916.....	1,236 00	3,305 21

1 Advertised and awarded to the lowest bidder.

Sewerage Works.—Continued.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost as per Estimated Quantities, not Including Materials Furnished by City.	Amount Expended in 1916.
¹ Wachusett street, between Northbourne and Eldridge roads, West Roxbury.	William L. Dolan.....	July 20, 1916.	Completed Sept. 30, 1916.....	\$1,048 60	\$1,205 45
¹ Richwood street, between Centre and Montview streets; Centre street, between Corey street and N. Y., N. H. & H. R. R.; Centre street, from Willow street to summit 150 feet east of Beech street; Roslindale branch of Stony Brook, Section 2, in land of N. Y., N. H. & H. R. R.; Willow and Centre streets, West Roxbury.	William J. Barry.....	July 20, 1916.	Unfinished.....	55,600 75	6,525 11
¹ Gainsborough street, between St. Botolph street and N. Y., N. H. & H. R. R., Roxbury.	Michael H. Loonie.....	July 24, 1916.	Completed Oct. 4, 1916.....	2,124 83	2,700 89
¹ Clinton street, between Commercial street and Merchants row, city proper.	Timothy Coughlin.....	Aug. 9, 1916.	Completed Oct. 16, 1916.....	1,736 19	3,938 81
¹ Roys street, between Lamartine street and Chestnut avenue, Roxbury.	James Barletta.....	Aug. 9, 1916.	Completed Aug. 25, 1916.....	417 00	394 74
¹ Water street, between Garfield and East Glenwood avenues; East Glenwood avenue, between Water and Loring streets, Hyde Park.	Frank Drinkwater.....	Aug. 9, 1916.	Completed Dec. 9, 1916.....	2,367 20	3,102 10
¹ Fruit street, between Charles and Blossom streets; Blossom street, between Fruit and Allen streets; North Grove street, between Fruit and Cambridge streets, city proper.	M. DeSisto.....	Aug. 19, 1916.	Unfinished.....	11,562 88	10,313 35
¹ Gordon avenue, from Beaver street about 600 feet northwesterly, Hyde Park.	George J. Regan.....	Aug. 19, 1916.	Unfinished.....	3,425 79	2,400 34

PUBLIC WORKS DEPARTMENT.

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¹ New England avenue and Bernard street, between Talbot avenue and Norfolk street, Dorchester.	Daddario & Booth.....	Aug. 19, 1916.	Completed Dec. 7, 1916.....	12,014 50	12,712 80
¹ Burlington avenue, between Brookline avenue and B. & A. R. R., Roxbury.	Anthony Baruffaldi.....	Aug. 19, 1916.	Unfinished.....	3,905 85	5,200 68
¹ Commonwealth avenue, between Ashby and Essex streets, Brighton.	Anthony Baruffaldi.....	Aug. 19, 1916.	Unfinished.....	9,872 00	12 819 06
¹ Auburn street, between Roslindale and Bellevue avenues, West Roxbury.	Frank Drinkwater.....	Aug. 19, 1916.	Completed Oct. 11, 1916.....	535 00	1,143 11
¹ Dorchester avenue, from Hancock street to Savin Hill avenue, Dorchester.	V. Grande.....	Aug. 19, 1916.	Completed Oct. 24, 1916.....	2,303 50	3,248 98
¹ Deerfield street, at Back street, Roxbury...	William Barrett & Co.....	Aug. 19, 1916.	Unfinished.....	6,733 50	3,268 29
¹ Harrison avenue, between Kneeland and Dover streets, city proper.	William Barrett & Co.....	Aug. 19, 1916.	Unfinished.....	15,483 00	18,108 34
¹ Cross street, between Fulton and Commercial streets, city proper.	John F. Lynch.....	Aug. 23, 1916.	Unfinished.....	2,051 50	2,342 21
¹ Fulton street, between Richmond and Ferry streets; Barrett street, between Fulton and North streets, city proper.	John F. Lynch.....	Aug. 23, 1916.	Unfinished.....	4,045 25	5,113 10
¹ Albany street, between Kneeland street and B. & A. R. R., city proper.	William Barrett & Co.....	Aug. 23, 1916.	Completed Nov. 18, 1916.....	12,494 95	14,907 68
¹ Gove street, between Cottage and Venice streets, East Boston.	Anthony Baruffaldi.....	Aug. 26, 1916.	Completed Oct. 7, 1916.....	1,372 54	2,363 16
¹ Alley No. 914, between Jersey and Queensberry streets, Roxbury.	M. H. Kelley.....	Aug. 30, 1916.	Unfinished.....	4,267 45	6,221 63
¹ B and Seventh streets overflow extension, from N. Y., N. H. & H. R. R., about 130 feet westerly, South Boston.	John F. McCarthy.....	Aug. 31, 1916.	Unfinished.....	11,595 75	15,496 91

¹ Advertised and awarded to lowest bidder.

Sewerage Works.—Concluded.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost as per Estimated Quantities, not Including Materials Furnished by City.	Amount Expended in 1916
¹ Levant street, from 100 feet east of Tebros street about 140 feet easterly; Delano street, between Levant and Bowdoin streets, Dorchester.	John F. Lynch.....	Sept. 7, 1916.	Unfinished.....	\$653 85	\$469 45
¹ Academy Hill road, between Chestnut Hill and William Jackson avenues; William Jackson avenue, between Chestnut Hill avenue and Academy Hill road, Brighton.	George J. Regan.....	Sept. 12, 1916.	Unfinished.....	2,730 50	Nothing.
¹ Adams street, from Rosemont road about 180 feet southerly; Southwick street, between Freeport street and Neponset avenue, Dorchester.	Antony Cefalo.....	Sept. 12, 1916.	Completed Oct. 14, 1916.....	1,557 00	1,558 01
¹ Groveland street, between Glenmore and Manchester streets, Dorchester.	George J. Regan.....	Sept. 15, 1916.	Completed Nov. 3, 1916.....	507 50	930 45
¹ Moraine street, between Centre street and Pond View avenue; Halifax street, between South Huntington avenue and Ashcroft street, West Roxbury.	William L. Dolan.....	Sept. 28, 1916.	Completed Nov. 11, 1916.....	4,089 00	4,702 98
¹ Kenrick street, between Lake street and Brayton road, Brighton.	William L. Dolan.....	Oct. 3, 1916.	Unfinished.....	2,939 50	2,697 06
¹ La Grange street, from Glenham street about 90 feet southeast of Lasell street, West Roxbury.	Antony Cefalo.....	Oct. 4, 1916.	Completed Nov. 1, 1916.....	1,321 30	1,525 43
¹ Jeffries and Sumner streets, from Marginal street 250 feet east of Jeffries street, East Boston.	Antony Cefalo.....	Oct. 19, 1916.	Completed Dec. 2, 1916.....	1,399 00	1,415 65

PUBLIC WORKS DEPARTMENT.

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Waldridge street, between Brainerd road and Commonwealth avenue, Brighton.	Michael H. Loomie.....	Oct. 19, 1916.	Completed Nov. 10, 1916.....	806 00	754 00
Mt. Ida road, between Marie street and Homes avenue, Dorchester.	Timothy Coughlin.....	Oct. 19, 1916.	Completed Dec. 1, 1916.....	922 00	1,434 61
..... from Metropolitan sewer rest; Hodgdon terrace, about 200 feet westerly,	V. Grande.....	Nov. 3, 1916.	Unfinished.....	1,981 50	1,535 03
Florence street, between Westbourne road and Wyvern street; Wyvern street, between Florence street and Hyde Park avenue, West Roxbury.	William L. Dolan.....	Nov. 16, 1916.	Unfinished.....	2,314 50	Nothing.
Estella street, from Morton street 270 feet westerly, Dorchester.	George J. Regan.....	Dec. 4, 1916.	Unfinished.....	406 00	1,553 29
bout bout rest, it of iesly,	Michael H. Loomie.....	Dec. 27, 1916.	Unfinished.....	525 00	Nothing.
Wilcox road, between Beaumont street and Elm road; Sampson street, from Adams street about 285 feet easterly, Dorchester	James J. Conway.....	Dec. 27, 1916.	Unfinished.....	1,039 50	Nothing.
Wilton st. 250 ft between..... about road, chester	Daddario & Booth.....	Dec. 27, 1916.	Unfinished.....	2,075 00	Nothing.
Elven road, between Washington street and Stony brook, West Roxbury.	Antony Cefalo.....	Jan. 3, 1917.	Unfinished.....	693 25	Nothing.
London street, between Decatur and Maverick streets, East Boston.	Antony Cefalo.....	Jan. 31, 1917.	Unfinished.....	2,031 40	Nothing.

* Advertised and awarded to the lowest bidder.

Miscellaneous.

Contract	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
¹ Repairing shed at the main drainage yard, Massachusetts avenue, Roxbury.	Boston Painting & Roofing Company.	Mch. 28, 1916.	Completed April 11, 1916.	\$315.	\$315 00
^{1, 4} Furnishing and driving spruce piles for sewerage works in Holworthy street, from Walnut avenue to Harold street, Roxbury.	W. S. Randle	May 22, 1916.	.....	\$480.	Nothing.
Permission to cross under land and tracks of the N. Y., N. H. & H. R. R., near D street, South Boston, for the purpose of constructing an overflow sewer.	N. Y., N. H. & H. R. R. Co . . .	June 10, 1916.	.....	City to pay all cost of supporting and guarding tracks and roadbed and all expense occasioned by its maintenance or repairing.	Nothing.
³ Agreement to rebuild Summer street sewer, from Eates place 235 feet southeasterly, city proper.	Boston Transit Commission . . .	Sept. 7, 1916.	.....	.....	.....
¹ Rebuilding catch-basin, Webster and Orleans streets, East Boston.	James J Coughlan Company . .	Sept. 16, 1916.	Completed Sept. 22, 1916.	\$80.	\$106 61
¹ Furnish wrought-iron set outlet at Ch	W. A. Snow Iron Works, Inc.	Oct. 17, 1916.	Unfinished.	\$684.	Nothing.
¹ Repairing roof pumping station, Union Park and Albany streets, city proper.	Boston Painting & Roofing Company.	July 18, 1916.	Completed Oct. 1, 1916.	\$300.	\$300 00
Permission to build a circular cement concrete conduit along the right of way of the N. Y., N. H. & H. R. R. property from a point near Anawan avenue at Bellevue Station, westerly, to a point about opposite Willow street, West Roxbury	N. Y., N. H. & H. R. R. Co. . .	Sept. 28, 1916.	.....	City to pay all cost of supporting and guarding tracks and roadbed and all expenses occasioned at any time hereafter by reason of the laying, maintaining or repairing of said conduit.	.....
¹ Installing ventilating system, Summer Street Pumping Station.	B. F. Sturtevant Company . . .	Jan. 18, 1917.	Unfinished.	\$198 50.	Nothing.

¹ Only bid; not advertised.³ Invitation bids; awarded to lowest bidder.¹ Contract for this work made by Boston Transit Commission, the Public Works Department to pay one half of the cost thereof up to and not exceeding a total cost of \$10,000.⁴ Work never done; piles not needed.

Pumping Station, Calf Pasture.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
¹ Furnishing 250 feet of chain and sixty-four scraper blades.	R. Minton Company.....	Mar. 29, 1916.	Completed June 15, 1916.....	\$455 86	\$455 86
¹ Furnishing and installing ventilators on boiler house.	Boston Painting & Roofing Company.	June 6, 1916.	Completed July 15, 1916.....	322 00	322 00

¹ Only bid; not advertised.

**HIGHWAY DIVISION.—WATER SERVICE.
Water Pipes.—Laying.**

CONTRACT	Awarded to	Dated	Progress of Work.	Estimated Cost as per Estimated Quantities, not including Materials Furnished by City.	Amount Expended in 1916.
Wesleyan place, off Bromfield street, city proper.	Coleman Brothers.....	Feb. 1, 1916.	Completed Feb. 5, 1916.....	\$319 00	\$319 00
Frankonia street, between Adams and Beaumont streets; Foss road, between Beaumont and Elm streets, Whitten street, between Althea street, Green- ts; Althea street, Green- ts; Lithgow street, and Wainwright between Intervale and Devon streets; Ripley street, between Vassar street and existing main, Dorchester.	Louis Balboni.....	April 11, 1916.	Completed June 16, 1916 .	2,505 23	2,717 72
W	Thomas Russo & Co . . .	April 11, 1916.	Completed July 12, 1916 .	2,477 50	2,449 25
n Essex street 120 feet street, from Beach street Washington 3 feet s street 10 en India itic avenue, between India farnson avenue, between rt streets; Beacon street, between railroad bridge and Brookline ave- nue; Atlantic avenue, opposite Foster's Wharf, city proper	Thomas Burke.	April 11, 1916	Completed June 7, 1916.....	1,855 61	1,805 60

PUBLIC WORKS DEPARTMENT.

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Crowell, Wildwood and Kennebec streets; Dorchester; Lecher street, (Hinner terrace and Maylin street, West Roxbury; Warren avenue, Hyde Park.	John Guarino	April 13, 1916.	Completed June 26, 1916...	2,035 50	2,312 57
Harvard and Delhi streets, Dorchester; Greston road, West Roxbury, Dana and Easton avenues and Bridge street, Hyde Park.	James Barletta.....	April 29, 1916.	Completed Aug 5, 1916 ...	1,938 30	2,010 18
300 feet Portland between Oneida and Albany street; Lehigh street, from Albany street 200 feet easterly, city proper; Condon street, East Boston.	John A. Costello & Co.....	May 20, 1916.	Unfinished	2,311 00	3,392 77
Washington street, from Elven road to a point west of Whipple avenue, Archdale road, easterly from Washington street, West Roxbury.	M. DeSisto	May 26, 1916.	Completed Aug 7, 1916 ...	1,749 85	1,814 53
...	John Guarino ..	May 26, 1916.	Completed Sept. 29, 1916...	2,548 00	3,160 12
Harold street, between Harnishof and Townsend streets; Caspian way, between Savin Hill avenue and Castle Rock street; Rosemont road, ...	Thomas Russo & Co....	June 7, 1916.	Unfinished.....	3,169 60	1,680 97
...	V. Grande	June 26, 1916.	Completed Aug. 24, 1916...	1,632 30	1,513 86

1 Advertised and awarded to lowest bidder.

2 Invitation bids; awarded to lowest bidder.

3 Advertised and awarded to second lowest bidder.

Water Pipes.—Laying.—Continued.

Estimated Cost as per Estimated Quantities, not Including Materials Furnished by City.	Amount Expended in 1916.
\$2,377 80	\$2,703 98
1,458 50	1,373 85
1,308 40	1,407 60
7,137 72	6,052 00
1,041 50	2,343 15
11,614 20	12,437 76
294 00	324 56
14,605 50	8,793 23

PUBLIC WORKS DEPARTMENT.

55

¹ Theodore, Leslie and Orlando streets, New- castle road and Menton street, Dorchester; Upton street, Hyde Park	M. DeSisto	Sept. 7, 1916.	Completed Nov. 22, 1916...	2,067 28	2,065 15
² Hyde Park avenue, Blanton and Carlford roads and along right of way near railroad line, between Blanton and Carlford roads; Wyvern and Hobson streets, West Roxbury.	Hugh McNulty.....	Sept. 12, 1916.	Completed Nov. 9, 1916...	2,094 10	2,271 37
³ N. Y., N. H. & H. R. R. yard at Rosdville and Sprague streets, from railroad bridge to the Dedham line, Hyde Park.	M. DeSisto.....	Sept. 12, 1916.	Completed Nov. 1, 1916....	2,317 40	2,535 11
⁴ Dana avenue, over N. Y., N. H. & H. R. R., Hyde Park.	John A. Costello & Co.	Aug. 21, 1916.	Completed Aug. 23, 1916...	243 00	243 00
⁵ Auburn street, Arcadia road, Baker, Dent, Orange and West streets, West Roxbury; Groveland, Manchester, Manton and Morton streets, Dorchester.	James Barletta.....	Sept. 20, 1916.	Unfinished.....	2,802 50	1,049 42
⁶ Massachusetts avenue, between Beacon and Back street, Portland street, from Causeway street to existing main tween Shawmut avenue city proper; Westwood place and Richfield Wesley street, between Bucknam street and Bickford avenue, Roxbury; Clapp street, between Norfolk avenue and the railroad; Parkway, between Perkins street and Park- ton road, West Roxbury.	V. Grande.....	Sept. 22, 1916.	Completed Nov. 29, 1916...	2,563 40	1,972 80
⁷ George and Stimson streets and North avenue, West Roxbury	Anthony Cefalo.....	Oct. 18, 1916.	Unfinished....	1,659 70	1,613 05
⁸ Warren street, between Dudley and Washing- ton streets; Washington street, between ; Palmer street, ; and Harrison between Dudley Harrison avenue and passageway; Taber street, between Warren street and existing gate, Roxbury.	M. DeSisto.....	Oct. 19, 1916.	Unfinished.....	2,635 00	1,376 08

¹ Advertised and awarded to lowest bidder.² Invitation bids; awarded to lowest bidder.³ Only bid; not advertised.⁴ Advertised and awarded to second lowest bidder.

Water Pipes.—Laying.—Concluded.

				Estimated Cost as per Estimated Quantities, not Including Materials Furnished by City.	Amount Expended in 1916
1 Dacia street, between Brookford and Dewey streets, Roxbury.	John Guarino & Son.....	Nov. 2, 1916.	Completed Nov. 11, 1916....	\$2,442 00	\$1,531 02
1 Verdun street, be streets, Carrut Levant street, easterly, Hall Washington st Bewall street & st.	William Barrett & Co.....	Nov. 21, 1916.	Unfinished.....	2,015 00	2,524 40
1 Dunboy and Harriet streets and Waldo terrace, Brighton.	James Barletta.....	Dec. 4, 1916.	Completed Jan. 18, 1917....	534 00	524 38
1 Atlantic avenue, between Milk and South Market streets; State street, from existing	Antony Cefalo.....	Dec. 12, 1916.	Unfinished.....	1,002 50	1,383 36
				1,121 50	966 31
				4,587 50	Nothing.
ing main to Causeway street; Lancaster street, from Causeway street 200 feet easterly, city proper.					
1 Ashton, Fontaine and Livingston streets, Dor- chester; Acton and Upton streets, Hyde Park.	John Guarino & Son.....	Dec. 18, 1916.	Unfinished.....	2,005 00	Nothing.

1 Advertised and awarded to lowest bidder.

Water Pipes.—Relaying.

CONTRACT.	Awarded to	Dated.	Progress of Work.	Estimated Cost as per Estimated Quantities, not Including Materials Furnished by City.	Amount Expended in 1916.
¹ Commonwealth avenue, from Massachusetts avenue to Charlesgate East; Burlington avenue, from Brookline avenue to the railroad; North Centre street, from Hanover street to North street; Rollins street, from Washington street to Harrison avenue; Northampton street, from Columbus avenue to Watson street; Watson street, from Northampton street to Camden street, city proper.	John A. Costello & Co.....	May 20, 1916.	Completed Aug. 4, 1916....	\$2,299 00	\$2,279 03
² Harvard place, off Washington street, city proper.	Thomas Russo & Co.....	May 19, 1916.	Completed May 29, 1916....	540 00	318 28
¹ Bardwell, Ballard, Custer, Woodman, Jamaica and St. Rose streets, West Roxbury.	Martino DeMatteo.....	Aug. 4, 1916.	Completed Sept. 27, 1916....	2,826 75	2,512 82
¹ Ivory street, between Temple and Perham streets; Perham street, between Ivory and Vermont streets, West Roxbury.	John Guarino & Son.....	Aug. 19, 1916.	Completed Oct. 10, 1916....	1,940 50	1,686 57
¹ Blackstone street, from Hanover street to Clinton street; Clinton street, from Blackstone street to Commercial street; Thacher street, between Washington and Prince streets, city proper.	Antony Cefalo.....	Nov. 23, 1916.	Unfinished.....	2,823 00	1,169 18

¹ Advertised and awarded to lowest bidder.

² Invitation bids; awarded to lowest bidder.

Miscellaneous.

Contract.	Awarded to	Dated.	Progress of Work.	Estimated Cost.	Amount Expended in 1916.
* Furnishing shanties and ice at the of East C	J J Walsh & Co.....	Mar. 15, 1916.	Completed July 1, 1916.	\$470.....	\$470 00
* Erecting office building, High Pressure Fire Service, at the yard on Albany street, foot of East Canton street, city proper	E. F. Hodgson Company..	May 2, 1916.	Completed June 1, 1916.	\$324	324 00
* Excavating and refilling trenches and openings, setting and regulating boxes, establishing hydrants, gates, etc., in District No. 1, comprising Wards 21 to 26, inclusive.	Thomas Burke.....	May 16, 1916.	Completed Dec. 8, 1916.	\$6,799 25.....	2,198 40
* Excavating and refilling trenches and openings, setting and regulating boxes, establishing hydrants, gates, etc., in a portion of District No. 2, comprising Wards 5 to 20, inclusive.	Thomas Burke.....	May 16, 1916.	Completed Sept. 30, 1916.	\$14,306 25	8,556 04
Permission to lay and maintain a 12-inch water pipe over the tracks of the N. Y., N. H. & H. R. R., at Dana avenue, Hyde Park.	N. Y., N. H. & H. R. R. Co....	June 16, 1916.	.....	City to pay all cost of supporting and guarding tracks and roadbed, and all expenses occasioned by its maintenance or repairing.	
* Excavating trenches in Woolson street, Dorchester, for the installation of water pipes.	M. DeSisto.....	Nov. 7, 1916.	Unfinished.	\$682 50....	601 75
* Asbestos covering, water pipe, Dana avenue bridge, Hyde Park	Norritown Magnesia and Asbestos Company.	Nov. 21, 1916.	Completed Dec. 22, 1916.	\$372.....	372 00
* Teaming water pipe, castings, etc., from the South Bay yard to the High Pressure Fire Service yard.	Coleman Brothers.	Nov. 27, 1916.	Completed Dec. 1, 1916.	\$320.....	320 00
* Excavating for and calking joints for high pressure fire pipe and piling pipe at Albany street yard.	George J. Regan.....	Nov. 2, 1916.	Completed Dec. 23, 1916.	\$0 35 per hour.	1,014 09

* Advertised and awarded to lowest bidder.

* Only bid; not advertised.

* Invitation bids; awarded to lowest bidder.

The following table shows the snowfall and rainfall since 1910:

Snowfall (inches).

MONTH.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
January.....	11.9	0.7	17.8	0.3	10.3	7.0	4.8
February.....	12.6	19.5	0.2	7.7	20.6	5.1	30.3
March.....	0.2	.....	2.0	0.5	5.2	T.	33.0
April.....	.....	.....	0.5	1.4	2.0	6.1	4.2
November.....	1.4	0.3	0.3	.....	.....	0.2	0.7
December.....	8.1	3.7	9.2	0.9	4.1	6.7	9.5
Totals.....	34.2	24.2	30.0	10.8	42.2	25.1	82.5

Rainfall (inches).

MONTH.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
January.....	4.25	2.28	2.87	2.38	3.26	6.83	1.23
February.....	3.44	2.85	2.38	2.99	3.07	3.47	5.18
March.....	1.25	2.95	4.18	4.81	4.16	T.	3.20
April.....	2.22	2.28	3.07	4.77	5.87	1.86	4.51
May.....	1.02	0.35	4.04	3.22	2.78	1.64	2.83
June.....	4.89	3.67	0.27	0.64	1.40	1.39	5.04
July.....	1.15	4.65	5.16	2.69	2.64	8.85	5.67
August.....	0.98	4.17	1.94	2.86	3.20	5.63	2.19
September.....	2.14	2.95	1.67	2.51	0.21	0.69	1.90
October.....	1.14	2.27	1.00	6.04	1.54	2.82	0.94
November.....	3.75	4.29	2.61	2.15	2.72	2.14	1.67
December.....	2.10	3.07	5.36	3.05	3.46	3.94	3.00
Totals.....	28.33	35.78	34.55	38.11	34.31	38.76	37.36

In this rainfall is included the precipitation during the winter months, which equals one tenth of an inch to one inch of snowfall.

Area of Pavements.
The Following Table Shows Areas in Square Yards and Character of Pavements on Accepted Streets, February 1, 1917.

DISTRICT.	Asphalt.	Granite Block.	Wood Block.	Plank on Bridges.	Brick.	Concrete.	Bitulithic.	Macadam.	Gravel.	Not Graded.	Totals.
Year 1915 report.....	341,559	2,333,198	221,892	39,923	111,804	.....	224,307	7,150,672	619,302	110,369	11,153,026
Per cent.....	3.06	20.92	1.99	0.36	1.00	.....	2.01	64.12	5.55	0.99	100.00
February 1, 1917.											
City Proper.....	233,251	940,842	155,393	9,236	9,237	.....	151,291	470,711	6,602	391	1,976,954
Charlestown.....	5,173	266,565	1,418	3,091	2,296	672	.....	161,240	275	754	441,484
East Boston.....	1,865	143,229	.....	1,699	950	.....	558	504,423	30,545	.....	683,269
South Boston.....	23,468	441,433	2,850	6,967	1,979	.....	18,424	397,384	11,672	42,212	946,389
Roxbury.....	65,409	317,185	24,443	1,417	50,532	2,514	44,606	1,099,248	29,191	4,143	1,638,688
West Roxbury.....	15,401	46,503	583	2,181	.....	3,025	31,742	1,427,192	99,145	28,201	1,653,973
Dorchester.....	43 661	172,934	37,376	5,579	48,208	1,327	31,912	1,817,930	112,574	23,425	2,294,926
Brighton.....	2,915	16,323	2,505	4,339	.....	6,371	15,979	833,765	76,103	7,897	966,197
Hyde Park.....	.....	1,653	.....	5,302	.....	.....	.....	346,202	238,426	21,548	613,131
Totals.....	* 391,143	† 2,346,667	224,568	39,811	113,202	‡ 13,909	§ 294,512	|| 7,058,095	604,533	128,571	11,215,011
Per cent.....	3.49	20.92	2.00	0.35	1.01	0.12	2.63	62.94	5.39	1.15	100.00

Total area of pavements on public streets, 11,215,011 square yards.
NOTE.— In the above table the city is subdivided substantially on the boundary lines between the districts as they existed when annexed to Boston. Territory annexed from Brookline is included in city proper.
* Of this amount 774 square yards equal asphalt blocks.
† Of this amount 654,944 square yards equal granite block paving on concrete base and 1,127 square yards equal cobble.
‡ Of this amount 672 square yards equal Hassam concrete pavement, and 946 square yards equal Blome Granitoid concrete blocked pavement, and 1,250 square yards equal Roman road pavement.
§ Of this amount 1,816 square yards equal Endurite and 16,355 square yards equal Topeka pavement.
|| Of this amount 1,832,397 square yards equal bituminous macadam.
27,363 square yards public alleys laid out under chapter 298 of the Acts of 1898 included in this table.
206,660 square yards public streets in charge of Park and Recreation Department included in this table.
48,474 square yards public streets in charge of the Commonwealth of Massachusetts included in this table.
In addition to this table there are 7,269 square yards of accepted foot passageways.

Public streets laid out and discontinued by the Street Commissioners during the year show pavements increased 2.50 miles, or 65,684 square yards.

The taking of Otter street by the state — Metropolitan Park Commission — shows pavements decreased 0.04 mile, or 594 square yards.

Corrections to previous measurements on account of revisions and other causes show pavements increased 0.11 mile, or decreased 3,105 square yards.

Total net increase, 2.57 miles, or 61.985 square yards.

The rate of increase from year to year is shown in the following table:

Miles.	Miles.	Miles.
1859.....111.50	1886.....383.55	1902.....496.90
1871.....201.32	1887.....390.30	1903.....499.85
1872.....207.40	1888.....392.72	1904.....500.39
1873.....209.24	1889.....397.84	1905.....502.20
1874.....313.90	1890.....404.60	1906.....502.80
1875.....318.58	1891.....409.60	1907.....510.04
1876.....327.50	1892.....434.59	1908.....511.60
1877.....333.20	1893.....443.34	1909.....514.28
1878.....340.39	1894.....447.65	1910.....518.63
1879.....345.19	1895.....452.12	1911.....521.21
1880.....350.54	1896.....456.11	1912.....561.36
1881.....355.50	1897.....459.12	1913.....567.51
1882.....359.85	1898.....471.19	1914.....572.85
1883.....367.99	1899.....479.47	1915.....584.55
1884.....374.10	1900.....489.55	1916.....593.62
1885.....379.60	1901.....491.85	1917.....596.19

Length of Pavements.

The Following Table Shows Length in Miles and Character of Pavements on Accepted Streets, February 1, 1917.

District.	Asphalt.	Granite Block.	Wood Block.	Plank on Bridges.	Brick.	Concrete.	Bitulithic.	Macadam.	Gravel.	Not Graded.	Totals.
Year 1915 report.....	23.24	102.37	8.96	1.90	5.50	.....	12.11	396.45	40.04	3.15	593.82
Per cent.	3 91	17.23	1.51	0.32	0.93	...	2 04	66 79	6 74	0.53	100.00
February 1, 1917.											
City Proper	16.15	41.24	6.24	0.39	0.58	.....	6.54	23.50	0.35	0.01	95.00
Charlestown.....	0.32	11.91	0.06	0.13	0.10	0.03	.....	10.84	0.02	.....	23.41
East Boston.....	0 11	6.73	.....	0 11	0.04	.....	0.03	23.68	1.46	.....	32.16
South Boston	2.01	18.78	0 16	0.32	0.13	.....	1 07	20.94	0.62	1 65	45.68
Roxbury.....	3 69	13.63	1.14	0.06	2 69	0.17	2.58	64 02	2.08	0 16	90.18
West Roxbury.....	1.00	1.73	.....	0 11	.....	0.25	1.82	85.79	6.66	0.44	97.80
Dorchester.....	2 87	8 17	1.46	0.24	1.94	0.09	1 88	106 38	6 83	0.53	130.39
Brighton.....	0.15	0 64	0 04	0.24	.....	0.44	0.75	38 97	5.21	.....	46.44
Hyde Park.....	.....	0.08	.....	0.30	.....	.....	.....	18 79	15.72	0 24	35.13
Totals.....	* 26 30	† 102.91	9.10	1.80	5.48	† 0.06	‡ 14.67	‡ 392.91	28.90	3.05	596.19
Per cent.....	4 41	17.26	1.53	0.32	0.92	0 16	2.46	65.90	6.53	0.51	100.00

Total is
Norm.--
annexed from

on the boundary lines between the districts as they existed when annexed to Boston. Territory

* Of this amount 0.02 mile equals asphalt blocks.

† Of this amount 25.31 miles equal granite block paving on concrete base and 0.12 mile equals cobble

‡ Of this amount 0.03 mile equals Hanson concrete pavement, and 0.06 mile equals Blome granite concrete blocked pavement, and 0.08 mile equals Roman road pavement.

§ Of this amount 0.09 mile equals Endurite and 0.94 mile equals Topeka pavement.

|| Of this amount 88.34 miles equal bituminous macadam.

¶ Of this amount 88.34 miles equal bituminous macadam.

§ Of this amount 88.34 miles equal bituminous macadam.

|| Of this amount 88.34 miles equal bituminous macadam.

¶ Of this amount 88.34 miles equal bituminous macadam.

§ Of this amount 88.34 miles equal bituminous macadam.

The following changes in carrying pavements in the tables have been made:

Cobble, formerly having columns in the tables, is added with granite block.

Hassam concrete pavement, Blome granitoid concrete blocked pavement and Roman road pavement, formerly added with macadam, are added with concrete.

Endurite, formerly added with macadam, is added with bitulithic.

The following changes in pavement were made during the year:

0.19 mile or 2,691 square yards granite block changed to asphalt.
 0.13 mile or 1,976 square yards granite block changed to wood block.
 0.00 mile or 202 square yards granite block changed to brick.
 0.01 mile or 331 square yards granite block changed to bitulithic.
 0.00 mile or 134 square yards brick changed to granite block.
 0.02 mile or 633 square yards brick changed to wood block.
 0.00 mile or 25 square yards bitulithic changed to asphalt.
 0.70 mile or 13,409 square yards macadam changed to asphalt.
 0.34 mile or 5,621 square yards macadam changed to granite block.
 0.00 mile or 1,963 square yards macadam changed to brick.
 0.63 mile or 8,753 square yards macadam changed to concrete.
 1.18 miles or 45,310 square yards macadam changed to bitulithic.
 0.86 mile or 15,115 square yards macadam changed to Topeka.
 2.05 miles or 30,815 square yards gravel changed to asphalt.
 0.58 mile or 8,916 square yards gravel changed to granite block.
 0.15 mile or 1,970 square yards gravel changed to concrete.
 0.31 mile or 4,639 square yards gravel changed to bitulithic.
 0.08 mile or 740 square yards gravel changed to Topeka.
 0.10 mile or 1,536 square yards gravel changed to macadam.
 0.17 mile or 2,470 square yards not graded changed to asphalt.
 0.01 mile or 641 square yards not graded changed to granite block.
 0.00 mile or 500 square yards not graded changed to Topeka.
 0.00 mile or 1,937 square yards not graded changed to macadam.
 0.18 mile or 3,878 square yards not graded changed to gravel.

Streets laid out or discontinued by the Street Commissioners during the year show:

Granite block increased 0.00 mile or 1,473 square yards.
 Macadam decreased 0.03 mile or 000 square yards.
 Gravel increased 2.14 miles or 34,022 square yards.
 Not graded increased 0.39 mile or 30,189 square yards.

The taking of Otter street by the state — Metropolitan Park Commission — shows:

Asphalt decreased 0.03 mile or 523 square yards.
 Macadam decreased 0.01 mile or 71 square yards.

Corrections on account of revisions and other causes show:

Asphalt decreased 0.02 mile or increased 4 square yards.
 Asphalt blocks increased 0.00 mile or 693 square yards.
 Granite block increased 0.10 mile or 2,324 square yards.
 Cobble decreased 0.06 mile or 440 square yards.
 Wood block decreased 0.01 mile or increased 67 square yards.
 Plank decreased 0.01 mile or 112 square yards.
 Concrete increased 0.03 mile or 318 square yards.
 Bitulithic increased 0.03 mile or 1,779 square yards.
 Macadam increased 0.37 mile or decreased 1,124 square yards.
 Gravel decreased 0.19 mile or 4,053 square yards.
 Not graded decreased 0.13 mile or 2,561 square yards.

LIST OF PERSONAL PROPERTY ON HAND JANUARY 31, 1917, AND
ESTIMATED VALUE OF SAME, ALLOWING FOR DEPRECIATION.

Central Office.

1 automobile	\$1,000 00
Robes	15 00
Supplies for automobile	25 00
	<hr/>
	<u>\$1,040 00</u>

Bridge Service.

5 horses	\$1,250 00
5 wagons	250 00
4 buggies	150 00
6 harnesses	85 00
8 blankets	10 00
4 robes	15 00
3 automobiles	1,200 00
1 auto truck	1,000 00
Supplies, tools and machinery	7,500 00
	<hr/>
	<u>\$11,460 00</u>

Ferry Service.

7 ferryboats	\$208,995 00
Supplies, tools and machinery	15,364 00
	<hr/>
	<u>\$224,359 00</u>

Lighting Service.

10,260 lamp-posts	\$102,600 00
295 inverted gas lamps	750 00
295 automatic lighters	2,250 00
246 post extensions	1,100 00
300 lamp brackets	275 00
1 lot lamp accessories	50 00
1 automobile	100 00
1 robe	10 00
	<hr/>
	<u>\$107,135 00</u>

Paving Service.

252 harnesses	\$2,520 00
8 automobiles	2,100 00
266 blankets	266 00
22 buggies	660 00
11 pungs	200 00
	<hr/>

Carried forward \$5,746 00

PUBLIC WORKS DEPARTMENT.

65

<i>Brought forward</i>	\$5,746 00
6 sleighs	150 00
14 jiggers	550 00
20 wagons	1,000 00
13 street watering carts	1,800 00
7 road scrapers	2,800 00
87 dump carts — 20 double, 67 single	8,000 00
113 horses	33,900 00
40 snow levels	2,600 00
12 section rollers	1,000 00
12 steam rollers	16,000 00
34 desks	340 00
1,493 picks	750 00
1,849 shovels	925 00
Supplies, tools, machinery, surveying instruments, engineers' supplies, etc.	45,000 00
	<hr/>
	\$120,561 00

Sanitary Service.

3 automobiles	\$1,500 00
4 auto trucks	6,300 00
287 horse blankets	287 00
18 buggies	450 00
218 carts	21,800 00
353 shovels	265 00
219 harnesses	3,200 00
195 horses	58,500 00
94 wagons	5,640 00
17 desks	150 00
9 sleighs	90 00
72 pungs and sleds	1,440 00
2 scows	100 00
Supplies, tools, machinery, etc.	10,000 00
	<hr/>
	\$109,722 00

Street Cleaning and Oiling Service.

5 automobiles and 2 trucks	\$6,200 00
130 carts	13,000 00
15 buggies	300 00
27 street watering carts	2,500 00
9 wagons	700 00
248 harnesses	3,800 00
184 horses	55,200 00
45 street sweeping machines	9,000 00
12 flushing machines	4,500 00
118 push carts	1,180 00
	<hr/>
<i>Carried forward</i>	\$96,380 00

<i>Brought forward</i>	\$96,380 00
720 street sweeping brooms	200 00
659 shovels	330 00
634 picks	320 00
9 snow ploughs and 19 road machines	7,500 00
Supplies, tools, machinery, etc.	10,000 00
	<hr/>
	\$114,730 00

Sewer Service.

611 picks	\$300 00
6 automobiles	2,000 00
29 horses	8,700 00
22 wagons	1,100 00
12 buggies	250 00
15 carts	1,500 00
49 harnesses	750 00
71 blankets	70 00
10 sleighs	80 00
284 shovels	142 00
97 pails	25 00
Derricks, centrifugal pumps, dynamo, boilers, engineers' tools, machinery, instruments and supplies, etc.	450,000 00
	<hr/>
	\$464,917 00

Water Service.

8 automobiles, 7 small and 3 large trucks	\$13,500 00
42 horses	12,600 00
38 wagons	1,900 00
8 buggies	200 00
3 sleighs	50 00
11 pungs	100 00
Shovels, picks and miscellaneous stock, consisting of all kinds and sizes of iron water pipe, meters, hydraulic machinery, boiler, hay and grain	350,000 00
	<hr/>
	\$378,350 00

Real Property in Charge of the Bridge and Ferry Division.— (Bridge Service.)

LOCATION.	ESTIMATED VALUE OF LAND.		Estimated Value of Buildings.	Total Value.
	Per Foot.	Total.		
SOUTH YARD AND STABLE. 170 Broadway extension, South Boston, 5,516 feet of land on Broadway extension and Dorchester avenue, on which is a brick building containing an office, workshop and stable; 948 square feet of this land was taken in 1912 for a convenience station;	\$ 1 75	\$9,600 00	\$15,000 00	\$24,600 00
LOCATION.	Estimated Value of Buildings.			Total Value.
BROADWAY BRIDGE. Draw house and one storehouse.....	Draw house, \$800; storehouse, \$200.....			\$1,000 00
CHARLESTOWN BRIDGE. Draw house, electrical power room and six storehouses *	Draw house, \$3,000; power room, \$1,000.....			4,000 00
CHELSEA NORTH BRIDGE. Draw house.....	\$300.....			300 00

* Five leased to M. P. Coleman for \$1,265 per year.

Real Property in Charge of the Bridge and Ferry Division.— (Bridge Service.)— Concluded.

LOCATION.	Estimated Value of Buildings.	Total Value.
CHELSEA SOUTH BRIDGE.		
Draw house, engine house and surface draw house.....	Draw house, \$1,500; engine house, \$100.....	\$1,600 00
CHELSEA STREET BRIDGE.		
Draw house.....	Draw house, \$1,800.....	1,800 00
CONGRESS STREET BRIDGE.		
Draw house, storehouse and two shelter houses.....	Draw house, \$1,000; storehouse, \$100; shelter house, \$500.	1,600 00
DOVER STREET BRIDGE.		
Draw house and two shelter houses.....	Draw house, \$1,000; shelter houses, \$500.....	1,500 00
DORCHESTER AVENUE BRIDGE.		
Draw houses, tool sheds, two motor houses and one controller house.....	Draw house, \$1,000; motor houses, \$300; tool house, \$200; controller house, \$25.	1,525 00
GRANITE AVENUE BRIDGE.		
Tool house and controller house.....	Tool house, \$100; controller house, \$100.....	200 00
L STREET BRIDGE.		
Draw house and engine house.....	Draw house, \$1,000; engine house, \$500.....	1,500 00

MALDEN BRIDGE.		
Draw house.....	\$2,000.....	2,000 00
MERIDIAN STREET BRIDGE.		
Draw house and tool house.....	Draw house, \$2,500; tool house, \$100.....	2,600 00
NEPONSET BRIDGE.		
Tool house.....	\$150.....	150 00
NORTHERN AVENUE BRIDGE.		
Draw house, containing a power room and storage room for compressed air and tool house.....	Draw house, \$4,500; tool house, \$100.....	4,600 00
SUMMER STREET BRIDGE.		
Draw house, controller house, two shelter houses and tool house.....	Draw house, \$3,000; controller house, \$250; shelter houses, \$500; tool house, \$100.	3,850 00
WARREN BRIDGE.		
Stable, draw house, containing an engine room and boiler room and a tool house.....	\$3,500.....	3,500 00
Warren avenue, between Water street and the railroad, used by Election Department for storage of election booths.		
WESTERN AVENUE BRIDGE TO WATERTOWN.		
Tool house.....	\$200.....	200 00

Real Property in Charge of the Bridge and Ferry Division.—(Ferry Service.)

LOCATION.	ESTIMATED VALUE OF LAND.		Estimated Value of Buildings.	Total Value.
	Per Foot.	Total.		
South Ferry, East Boston side, located at are one headhouse with canopies, or smiths, one storehouse, one coal pool and tanks, one wharf and dock.	* 33,196 at \$1 75 † 4,700 at 2 00 ‡ 16,579 at 1 50 † 2,000 at 1 75	\$96,300 00	\$43,000 00	\$139,300 00
South F are two located at the termination of Eastern avenue. On these premises h canopies, one gate room, three piers which form the two slips and	2 00	51,100 00	75,000 00	126,100 00
North Ferry, East Boston side, located at the termination of Border street. On these premises are one headhouse with canopies, one boiler, one coal pocket, three piers which form the two slips and two drops and tanks.	† 18,576 at 2 00 ‡ 42,202 at 1 75	111,800 00	53,000 00	169,800 00
North Ferry, Boston side, located at the termination of Battery street. On these premises are one headhouse with canopies, one gate room, three piers which form the two slips and two drops and tanks.	† 1,051 at 3 50 ‡ 24,600 at 2 00	106,000 00	69,000 00	175,000 00
‡ Eastern avenue, No. 60, adjoining South Ferry Headhouse, Boston side. Upon this lot is a house and office building owned by Patrick J. Connolly.				

* Wharfs and docks.

† Solid.

‡ Land leased to Patrick J. Connolly for \$200 per year.

Real Property in Charge of the Highway Division.—(Lighting Service.)

LOCATION.	Estimated Value of Land.	Estimated Value of Buildings.	Total Value.
Lot of land , containing 8,000 square feet at 690 Albany street.	\$10,000 00	\$3,000 00	\$13,000 00

Real Property in Charge of the Highway Division.— (Paving Service.)

LOCATION.	ESTIMATED VALUE OF LAND.		Estimated Value of Buildings.	Total Value.
	Per Foot.	Total.		
SOUTH BOSTON. Columbia road, corner of H street, stable, carriage house, shed, tool house and office built by the city on land containing 12,017 square feet, rented from William H. Hart. Columbia road, corner Hamlin street, lot of land used for storage purposes, containing 6,710 square feet, rented from Charles P. Mooney, agent.	\$0 40	\$4,800 00	\$900 00	\$5,700 00
	25	1,700 00	.....	1,700 00
EAST BOSTON. East Eagle street, corner Glendon street, sheds, stable and office building erected by the city on wharf property containing 328,700 square feet, leased in 1915 from Renton Whidden for a term of one year, for the sum of \$1,800. This property is used jointly with the Sewer, Sanitary, Street Cleaning and Oiling Services.*	.....	129,700 00	13,300 00	143,000 00
CHARLESTOWN. Medford street, foot of Elm street, wharf property containing 44,700 square feet (Sur. Prog. 968), owned by the city. Upon this lot are a shed, stable and office building.	90	41,100 00	8,500 00	49,600 00
BRIGHTON. Chestnut Hill avenue, ledge lot containing 569,776 square feet (L 1,630), purchased in 1882 by the city. Upon this lot are stone crusher, stable, shed and office building and oil plant.	15	79,800 00	11,000 00	90,800 00

* Expired January 31, 1917.

Real Property in Charge of the Highway Division.— (Paving Service.)— Concluded.

LOCATION.	ESTIMATED VALUE OF LAND.		Estimated Value of Buildings.	Total Value.
	Per Foot.	Total.		
WEST ROXBURY.				
Child street, lot of land containing 43,024 square feet, owned by the city. Upon this lot are sheds, stable and office building. (See Sewer Service.)	\$0 45	\$19,300 00	\$3,500 00	\$22,800 00
Morton street, near Canterbury street, lot of land containing 14,484 square feet, owned by the city and used for storage purposes.	10	1,400 00	.....	1,400 00
Centre street, rear of 1932, lot of land used for storage purposes, hired for \$180 per year.				
DORCHESTER.				
Hancock street, opposite Bowdoin street, lot of land known as the almshouse lot, containing 104,132 square feet, which belonged to the town of Dorchester at the time of annexation. Upon this land are two stables, office, shed and tool house, used in part by Street Cleaning Service.	18	19,000 00	8,000 00	27,000 00
Downer avenue, lot of land containing 35,300 square feet, was purchased in 1871 to protect the almshouse lot. (Seven lots.)	8c. and 10c.	3,300 00	.....	3,300 00
Codman street, ledge lot containing 299,000 square feet, was purchased in 1870. Upon this lot is a shed containing steam engine and stone crusher, also a stable and tool house; 111,423 square feet additional bought in 1907 by the city.	05	20,600 00	3,000 00	23,600 00
ROXBURY.				
Highland street, lot of land containing 195,129 square feet, owned by the city. Upon this lot is a large brick stable erected in 1873-74 and used by the Sanitary, Street Cleaning and Paving Services; also a brick building used as a blacksmith shop and a shed for storage purposes.* (See Sanitary Service.)	40	78,100 00	51,000 00	129,100 00

SOUTH END.					
Albany street, No. 636, opposite Sharon street, wharf lot, containing 63,200 square feet, owned by the city. Upon this lot are stables, office, blacksmith and carpenter shops.	1 25	79,000 00	1,800 00	80,800 00	
Wharf lot adjoining the above, containing 39,511 square feet, owned by the city and used for storage purposes and receiving station for Sanitary Service. These wharves are owned by the city.	90	35,800 00	6,200 00	42,000 00	
Massachusetts avenue, near Magazine street, lot of land containing 1,452,628 square feet, rented from New York, New Haven & Hartford Railroad Company and used for storage purposes.*	80	1,162,100 00	24,900 00	1,187,000 00	
NORTH END.					
Commercial street, No. 521, wharf lot, containing 23,667 square feet, owned by the city. Upon this lot is a stable, shed and office building.	2 35	55,300 00	15,700 00	71,000 00	
HYDE PARK.					
Hyde Park avenue, lot containing 18,773 square feet, owned by the city. On this lot is an office, stable and shed. Portion of this lot leased to William R. Murphy for \$180 per year.†	1 00	18,800 00	22,200 00	41,000 00	

* These estates are only partly occupied by City of Boston. † These estates are only partly occupied by the Paving Service.

Real Property in Charge of the Highway Division.— (Sanitary Service.)

LOCATION.	ESTIMATED VALUE OF LAND.		Estimated Value of Buildings.	Total Value.
	Per Foot.	Total.		
SOUTH BOSTON. H and Second streets, stable and sheds, containing 8,590 square feet. Leased from E. M. & M. J. Mahoney.	30c. and 40c.....	\$3,800 00	\$2,900 00	\$6,700 00
	37,990 feet valued as part of 78,458 feet at \$0.08.	About \$3,000 00	71,333 00	74,333 00
DORCHESTER. South street, near Freeport street, lot of land taken in 1912 for refuse transfer station. Completed January 4, 1913.				
ROXBURY. Massachusetts avenue and Southampton street, weighing shed, containing about 2,300 square feet of land, leased from the Boston Consolidated Gas Company at \$10 dollars per month.		About \$10,700 00	5,000 00	15,700 00
Ward street, northerly side, near N. Y., N. H. & H. R. R., containing 12,500 square feet. See letter of Street Commissioners, January 6, 1914.	35,553 square feet at \$0.30			*
Highland street, situated on the old almshouse block, containing 81,082 square feet. Upon this lot are stable, sheds, carriage house, oil plant, etc. A part of this stable and lot is used by the Paving Service and Street Cleaning and Oiling Service.*	.....		
SOUTH END. Albany street, No. 650, containing 90,800 square feet. Upon this lot are stables, buildings, sheds, veterinary hospital, blacksmith, wheelwright, paint and harnessmakers' shops, also a horseshoeing shop, used in part by the Street Cleaning and Sewer Service.	.....	114,000 00	29,000 00	143,000 00

Albany street, No. 636, refuse transfer station, which was completed March 21, 1913.*					
North Grove street, stables, sheds, etc., containing 45,152 square feet. On May 11, 1896, a horseboosing shop was established, used in part by the Street Cleaning and Oiling Service.	\$2.25.....	101,900 00	62,800 00	164,100 00	
Normal Exp.					
Port Hill Wharf, contain station for the city's transfer station was ex	14,150 feet at \$12: 150 feet at \$3: 3,800 feet at \$1.50.	183,900 00	1,000 00	184,900 00	

* See Paving Service.

Real Property in Charge of the Highway Division.— (Street Cleaning and Oiling Service.)

LOCATION.	ESTIMATED VALUE OF LAND.		Estimated Value of Buildings.	Total Value.
	Per Foot.	Total.		
<div>SOUTH BOSTON.</div> <div>Yard and stable at 124 Old Harbor street, corner of Columbia road, leased by the city from D. W. Creed at \$75 per month.</div> <div>EAST BOSTON.</div> <div>Part of stable on East Eagle street. (See Paving Service.)</div> <div>CHARLESTOWN.</div> <div>Part of stable at 263 Rutherford avenue, office building, Rutherford avenue; stable at 245-249 Rutherford avenue, now occupied under lease for \$600 per year by Timothy F. Callahan.</div> <div>ROXBURY.</div> <div>Oil plant and part of stable on Highland street. (See Sanitary Service.)</div> <div>SOUTH END.</div> <div>Part of stable at 650 Albany street. (See Sanitary Service.)</div> <div>BACK BAY.</div> <div>Land at 62 Piedmont street, rented by city from Laurence Minot at \$10 per month; booth loaned by Election Commissioners used as an office on above land.</div> <div>Brick building, 47 Winchester street, leased for \$600 per year from Eleanor W. Daggett.....</div> <div>WEST END.</div> <div>Part of stable on North Grove street. (See Sanitary Service.)</div> <div>DORCHESTER.</div> <div>Gibson street, land and buildings used jointly with Water Service.....</div>	<div></div> <div></div> <div></div> <div>\$0 60</div> <div></div> <div></div> <div></div> <div></div> <div>3 00</div> <div>2 62½</div> <div></div> <div></div> <div></div>	<div></div> <div></div> <div></div> <div>\$17,700 00</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>7,000 00</div> <div></div> <div></div>	<div></div> <div></div> <div></div> <div>\$8,300 00</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>5,000 00</div> <div></div> <div></div>	<div></div> <div></div> <div></div> <div>\$26,000 00</div> <div></div> <div></div> <div></div> <div></div> <div></div> <div>12,000 00</div> <div></div> <div></div>

Real Property in Charge of the Highway Division.— (Sewer Service.)

LOCATION.	Estimated Value of Land.	Estimated Value of Buildings.	Total Value.
SOUTH BOSTON.			
Summer street, underground pumping station.			
EAST BOSTON.			
East Eagle street, yard and buildings leased from Renton Whidden, part of rental paid by this service. (See Paving Service.)			
BRIGHTON.			
Yard, Western avenue. (See Water Service.)			
Child and South streets, yard and buildings occupied in common with Paving Service. (See Paving Service)	\$19,300 00	\$3,500 00	\$22,800 00
DOVER.			
Old Harbor Point, land and buildings, including pumping station, 22½ acres; 45,729 square feet, more or less, on the westerly side of Mt. Vernon street, exchanged with the Boston Consolidated Gas Company for 51,000 square feet, more or less, on the easterly side of Mt. Vernon street.	138,000 00	675,000 00	813,000 00
SOUTH END.			
Albany street, No. 678, yard and buildings, 42,000 square feet	56,400 00	3,000 00	59,400 00
Massachusetts avenue, near Albany street, land and buildings, 7,385 square feet	5,200 00	500 00	5,700 00
Union Park street, corner Albany street, pumping station, containing 4,167 square feet of land	6,300 00	50,000 00	56,300 00
HYDE PARK.			
Milton avenue, pumping station.			
BACK BAY FENS.			
Gatehouse		12,000 00	12,000 00
MOON ISLAND AND SQUANTUM.			
Land, buildings and reservoirs. Upland in Squantum, 19.5 acres; upland on Moon Island, 37.65 acres; flats about Moon Island and Squantum, 131 acres.			

Real Property in Charge of the Highway Division.— (Water Service.)

LOCATION.	ESTIMATED VALUE OF LAND		Estimated Value of Buildings.	Total Value.
	Per Foot.	Total.		
EAST BOSTON.				
Eagle Hill reservoir, with a capacity of 5,000,000 gallons. Area of property, 220,875 square feet.	\$0 30	\$66,300 00	\$400 00	\$66,700 00
Condor street, formerly East I containing 40,000 square land and flats containing 4; 1900.	25,000 at \$0.60 93,000 at \$0.15	15,000 00 13,950 00	8,000 00	36,900 00
High service tank, Orient Heights, capacity 122,000 gallons. Area of property, 11,394 square feet.	\$0 10	1,100 00	5,000 00	6,100 00
CHARLESTOWN.				
Medford street, corner Tufts street, containing 13,050 square feet. Upon this lot are a work-shop and stable.	50	6,500 00	4,000 00	10,500 00
BRIGHTON.				
Western avenue, lot of land containing 135,350 square feet.	.....	9,200 00	5,500 00	14,700 00
WEST ROXBURY.				
Williams street, Jamaica Plain, Nos. 110-112, land and buildings used as district headquarters, rented from Thomas Minton for \$600 per year.				
Washington street and Metropolitan avenue, lot of land. Area of property, 12,895 square feet.	14	1,800 00	8,000 00	9,800 00
DORCHESTER.				
Gilboa street, land and buildings. (See Street Cleaning Service.)				

ROXBURY.					
Heath and Lawn streets, strip of land containing 5,707 square feet.....	25	1,425 00	.....	1,425 00	
SOUTH END.					
Albany street, No. 710, containing 98,100 square feet. Upon this lot are a machine shop, stable, wharf and pipe yard.	.....	91,000 00	117,000 00	208,000 00	
HYDE PARK.					
Fairmount reservoir, with a capacity of 1,500,000 gallons *.....	04	8,200 00	15,000 00	23,200 00	
Fairmount standpipe, with a capacity of 500,000 gallons. Area of property, 6.35 acres.....					
Water street, pumping station and lot of land. Area of property, 934,951 square feet.....	05	46,700 00	5,000 00	51,700 00	
Winthrop street, No. 48. Upon this lot are a building, two sheds and a stable. Leased from Henry S. Bunton, trustee for Robert Bleakie, for \$1 00 per year.					
Sprague street, bordering Sprague pond, lot of land containing 16,128 square feet.....	.....	500 00	.....	500 00	
BROOKLINE.					
Pipe route, from Beacon street to Boylston street. Area of property, 163,000 square feet.....	15	2,500 00	.....	2,500 00	
WINTHROP.					
Strip of land at Point Shirley containing 7,725 square feet.....	01	77 25	.....	77 25	
DEDHAM.					
Paradise lane, containing 12.5 acres. Upon this lot is a pumping station.....	.....	7,000 00	2,000 00	9,000 00	

* 206,020 square feet in Boston, balance in Milton.

EMPLOYEES.

The following tables show the number of requisitions made on the Civil Service Commission for men; the number appointed, reinstated, died, resigned, discharged and retired; also the grade and number of employees in the department:

Requisitions made on the Civil Service Commission .	60
Requisitions canceled	16
Number of men called	145
Number of men certified	235
Number of men appointed	153
Provisional appointments made permanent	37
Promotions allowed	29
Reinstatements allowed	* 29
Number of men resigned	16
Number of men discharged	15
Number of men died	92
Number of Civil War veterans retired	5
Number of laborers retired	74
Number of transfers to other departments	7
Number of transfers from other departments	31
Number of Civil War veterans retired, died	8
Number of laborers retired, died	44

The records of the department show that there are now 3,138 persons eligible for employment in the several divisions and of that number 3,032 were upon the January, 1917, pay rolls.

* Eighteen of these men were on the eligible list February 1, 1916.

Grade and Number of Employees.

TITLE.	SERVICES.									
	Central Office.	Paving.	Sewer.	Sanitary.	Street Cleaning.	Ferry.	Bridge.	Lighting.	Water.	Total.
Commissioner.....	1									1
Division engineers.....		1					1			2
Engineers in charge.....			1						2	3
Chief clerk.....	1									1
Clerks.....	42	18	7	2		1	1	1	38	110
Messengers.....		1			1				2	4
Chief engineers (civil).....		1	1							2
Assistant engineers (civil).....		14	21				8		6	49
Draughtsmen.....		2	24				11		4	41
Instrumentmen.....		6	24				7		5	42
Rodmen.....		15	45				9		9	78
Axeman.....		1								1
Inspectors.....		37	45	42	33		17		40	214
Foremen.....		11	4	8	10				13	46
Subforemen.....		31	7		5		2		1	46
Investigator.....			1							1
Addresograph printer.....									1	1
Blacksmiths and assistants.....		10	2	18					3	33
Boilermaker.....						1				1
Bracers and assistants.....			10							10
Blueprinters.....			2				1			3
Boys.....	3	3					1			7
Chauffeurs.....	1	3	5	3	3		3	1	9	28
Carpenters and assistants.....		22	4	3		4	13		9	55
Chief inspectors.....		1			1				2	4
Chemist and assistant.....		2								2
Claim agent.....	1									1
Cement tester.....			1							1
Coal passers.....			8							8
Cashiers.....		1				1				2
Constable and inspector.....		1								1
Drawtenders and assistants.....							135			135
Deckhands.....						27				27
Driver.....		1								1
<i>Carried forward</i>	49	182	212	76	53	34	209	2	144	961

Grade and Number of Employees.— *Continued.*

TITLE.	SERVICES.									
	Central Office.	Paving.	Sewer.	Sanitary.	Street Cleaning.	Ferry.	Bridge.	Lighting.	Water.	Total.
<i>Brought forward</i>	49	182	212	76	53	34	209	2	144	961
Dumpers.....					3					3
Engineers (steam).....		11	7			12			1	31
Electricians.....			1			1	1		1	4
Firemen.....		1	8			41			2	52
Chief engineer (steam).....			1							1
Gatemen.....			4			14				18
General foremen.....		1	1		1	1			3	7
Harnessmakers and assistants.....				9						9
Horseshoers.....				8						8
Inspectors, castings.....									2	2
Janitors (scrub).....				1		3	1		2	7
Janitresses.....						7				7
Joiners.....						3				3
Laborers and helpers.....		312	72		265	10	2		146	807
Lamplighters.....						2		1		3
Machinists and assistants.....			4			1	1		19	25
Meter testers.....									8	8
Meter readers.....									27	27
Masons (stone and brick).....			11							11
Medical inspectors.....		1		1						2
Oilers.....			17			12				29
Patternmakers.....						1			1	2
Pavers and assistants.....		81								81
Plumbers and assistants.....				1					46	47
Painters.....		1	1	11		3	4			20
Pipefitters.....						3				3
Captains.....						12				12
Property inspector.....	1									1
Quartermasters.....						12				12
Repairers.....									59	59
Roofer.....						1				1
Rammers.....		20								20
Rigger.....						1				1
<i>Carried forward</i>	50	610	339	107	322	174	218	3	461	2,284

Grade and Number of Employees.— *Concluded.*

TITLE.	SERVICES.									
	Central Office.	Paving.	Sewer.	Sanitary.	Street Cleaning.	Ferry.	Bridge.	Lighting.	Water.	Total.
<i>Brought forward</i>	50	610	339	107	322	174	218	8	461	2,284
Scalers.....									2	2
Sewer flushers.....			4							4
Supervisors.....	1				1		2			4
Stenographers.....	2	1	1				1	1		6
Stonecutters.....		14	2							16
Superintendent.....									1	1
Deputy.....									1	1
Stockkeepers.....				1		1			3	5
Stablemen.....		30	4	40	29		5		14	122
Tallyman.....				1						1
Tankman.....						1				1
Teamsters.....		70	16	335	102		2		24	549
Telephone operator.....									1	1
Tollmen.....						12				12
Toolman.....		1								1
Chief veterinarian.....		1								1
Watchmen.....		18	22	13	4		4		12	73
Weighers and assistants.....		1		3						4
Wharfinger and assistants.....		1		4						5
Wharfmen.....				3						3
Wheelwrights and assistants.....				7						7
Yardmen.....		9	6	6	6				8	35
Totals.....	53	756	394	520	464	188	232	4	527	3,138

Comparative Table Showing the Number of Employees Actually Employed February 1, 1916, and February 1, 1917.

	Central Office.	Bridge.	Ferry.	Lighting.	Paving.	Sanitary.	Sewer.	Street Cleaning and Watering.	Water.	Total.
February 1, 1916.....	53	200	188	4	743	543	379	452	498	3,060
February 1, 1917.....	51	227	188	4	740	493	381	438	510	3,032

Total Eligible Force.

February 1, 1916.....	53	202	189	4	765	561	391	477	510	3,152
February 1, 1917.....	53	232	188	4	756	520	394	464	527	3,138

Table of Employees Showing Appointments, Transfers, Resignations, Retirements, Deaths, &c During the Year.

Died.	Retired Laborers.	Retired Veterans.	Transferred to Other Depart-ments.	Transferred to Other Services.	Resigned.	Discharged	February 1, 1916.	SERVICES, 1916-17.	January 31, 1917.	Transferred from Other Services.	Transferred from Other Depart-ments.	Reinstated.	Unemployed
2	.....	.....	.....	3	.....	.....	53	Central Office.....	* 53	3	.....	.....
4	.....	1	.....	16	3	.....	202	Bridge.....	232	33	1	.....	:
2	6	.....	.....	17	1	5	189	Ferry.....	188	11	7	.....
.....	.....	.....	.....	.....	.....	.....	4	Lighting.....	4	.....	.....	.....	..
20	16	.....	.....	36	4	2	765	Paving.....	756	45	2	4	
16	11	2	3	40	1	3	561	Sanitary.....	520	16	1	1	
17	5	1	3	41	7	5	477	Street Cleaning.....	464	18	4	.....
20	4	.....	.....	31	.....	.....	391	Sewer.....	394	21	4	3	
11	32	1	1	15	.....	.....	510	Water.....	527	52	12	3	
92	74	5	7	109	16	15	3,152	Totals.....	3,138	199	31	11	1

* Includes eight Central Office employees who are paid on Water Service pay roll.

Respectfully submitted,
E. F. MURPHY,
Commissioner of Public Works.



PART II.

APPENDICES.

APPENDIX A.

CENTRAL OFFICE.

Appropriation	\$74,725 00
Expenditures from February 1, 1916, to January 31, 1917	74,206 04
	<hr/>
Balance transferred to city treasury	<u>\$518 96</u>

Expenditures.

Salary, commissioner	\$9,000 00
Salaries of clerks, stenographers, supervisor of contracts, etc.	58,459 73
Automobile expense:	
Wages of chauffeur	\$1,092 00
Tubes and tires, new and repairs,	393 35
Gasolene	301 72
Storage and care	180 00
Repairs	137 33
Shock absorbers	80 00
Supplies	70 48
Battery	24 00
Oil, grease, etc.	17 45
Registration	15 00
Robes	10 60
	<hr/>
	2,321 93
Books, papers, etc.	240 14
Printing	2,843 29
Stationery	721 61
Atlases	73 00
Postage	271 93
Telephone tolls	40 46
Premium on surety bonds	6 00
Travel expense	227 95
	<hr/>
	<u>\$74,206 04</u>

APPENDIX B.

REPORT OF THE DIVISION ENGINEER OF THE
BRIDGE AND FERRY DIVISION.

Boston, February 1, 1917.

MR. EDWARD F. MURPHY,

Commissioner of Public Works:

DEAR SIR,— I respectfully submit the following report of the income, expenditures and operation of the Bridge and Ferry Division for the year ending January 31, 1917. The expenditures of the division in the regular maintenance appropriations of the department were \$600,710.22 as against an appropriation of \$610,363.74, leaving a surplus for the year of \$9,653.52.

In addition to the regular maintenance work, the division supervised the expenditure of \$73,654.43 under a number of special appropriations, mainly for work on bridges, making the total expenditures for the year under appropriations credited to the Bridge and Ferry Division \$674,364.65. This figure does not include the expenditures on work of other departments or divisions supervised by the engineering staff of this division.

BRIDGE SERVICE.

In addition to minor repairs, considerable construction work and painting has been done on maintenance of bridges, as well as some new construction. Detailed descriptions of the more important construction jobs are given in the accompanying statement. (See pages 101 to 114.)

Apportionment of Cost of Bridges Between Boston and Chelsea.— The special commission appointed under the acts of the Legislature to apportion the cost of these bridges made a report to the Supreme Court, which issued a decree confirming the report, but the city of Chelsea has appealed the case to the Supreme Court

of the United States, so that the final settlement of the case will not be made for some time.

Brookline Avenue Bridge (over the Boston & Albany Railroad).—The Public Service Commission, upon the joint petition of the City of Boston and the West End Street Railway Company for an alteration of the bridge, certified on July 11, 1916, that an alteration was necessary. In December all the parties at interest agreed that the City of Boston should build the bridge and thereupon plans were started. The bridge will be built in 1917. The cost of the bridge will be apportioned among several parties interested.

Franklin Street Subway (under the Boston & Albany Railroad).

Harrison Avenue Bridge (over the Boston & Albany Railroad).

The railroad company has petitioned for an apportionment of the cost of both these bridges before special commissions appointed by the Superior Court, and the decisions of the commissions will probably be made in 1917.

Malden Bridge.—The engineering force of the division has checked and approved shop prints of the superstructure of the draw span and steel work, which has been largely fabricated, and has inspected the work on the foundations and on the pile bridge. All construction work on this bridge will be paid for by the Boston Elevated Railway Company. This work is being done in accordance with chapter 777, Acts of 1913.

Winthrop Bridge.—The final settlement of the cost of Winthrop Bridge has not yet been made on account of an outstanding claim not yet settled.

FERRY SERVICE.

A new jet condenser and pump were installed on the "Noddle Island" after the complete breakdown of the old pump.

A large amount of repair work on the hulls of the boats was done and the port holes were blocked up by the orders of the Steamboat Inspectors. A more detailed statement is given on page 128 of construction work.

MISCELLANEOUS.

The Strandway Improvement was placed under the supervision of this division and a contract made on

December 8, 1916, with the New York State Dredging Company for the work. Considerable work has been done but adverse weather conditions have caused some delay.

RECOMMENDATIONS FOR 1917.

Bridge Service.

Beech Street Bridge.— The bridge over the New York, New Haven & Hartford Railroad at Beech street, West Roxbury, should be rebuilt in connection with the proposed improvement of Belgrade avenue, but the matter should come before the Public Service Commission, as both the Boston Elevated Railway Company and the New York, New Haven & Hartford Railroad Company should contribute toward the cost.

Broadway Bridge (over the Boston & Albany Railroad).— The floor of this bridge should be entirely rebuilt and a petition to the Public Service Commission for a decree ordering the alteration will be made jointly by the City of Boston and the Boston Elevated Railway Company.

Chelsea Bridge South.— Designs for Chelsea Bridge South should be made during the coming year. Borings have been made showing the character of the bottom, and some preliminary studies have been started which show that the bascule type of bridge would be the best for this location.

Warren Bridge.— A careful inspection made during the past year of the under-planking and stringers of Warren Bridge, over the Charles river, shows that the entire roadway of the bridge should be rebuilt. Some portions were found in dangerous condition and were patched temporarily. This woodwork has been in place over thirty years. The estimated cost of replacement is approximately \$100,000.

Committee on Safeguarding of Highway Drawbridges.— The recommendations made by the committee appointed by the Mayor to consider methods of safeguarding highway drawbridges should be carried out to completion during the coming year.

Navigation Signal Lights.— The installation of navigation signal lights on bridges over navigable waters should be carried on until the requirements of the Department of Commerce have been complied with.

Ferry Service.

Plans should be made for a new boat, as has been recommended for some years past, to replace the

"D. D. Kelly," which was built in 1879, and is therefore thirty-eight years old.

A new boiler should be installed on the "Hugh O'Brien," as although the boat is thirty-four years old the hull is in good condition and the installation of a new boiler would postpone the building of a second new boat for some years. Unless some action is taken along these lines, the Ferry Service will soon find two or three of the boats condemned, and will be crippled to such an extent that efficient service will be out of the question.

Ventilating systems should be installed on all the boats on account of the blocking up of port holes and spaces between the deck beams, thereby making conditions in the engine rooms and fire rooms very bad. The engines on all of the boats should be lined up, if possible, as this work if once done would save considerable maintenance expenditure, although the first cost would be considerable.

A large amount of repair work should be done on the piers as they are now in very poor condition.

REPORT IN DETAIL.

A detailed report of the operation and expenditures of the Bridge and Ferry Division during the year is appended herewith.

Respectfully submitted,

JOHN E. CARTY,
Division Engineer.

BRIDGE SERVICE.

FINANCIAL STATEMENT.

Expenditures from Maintenance Appropriation.

Bridge Service:

Boston bridges	\$277,847 65	
Boston and Cambridge	18,945 39	
	<hr/>	\$296,793 04

Total Expenditures.

From maintenance appropriation	\$296,793 04
From special appropriations	68,177 24
	<hr/>
Total	\$364,970 28

EXPENDITURES ON BOSTON BRIDGES.

(1.) Administration:

Salaries:

Division engineer	\$3,504 88
Supervisors	4,780 95
Engineers and draughtsmen	21,987 28
Clerk and stenographer	1,396 20
Office boy	34 50
Medical inspector	83 00
Pensions, veterans	\$4,568 87
Pensions, laborers	360 00
	<hr/>
	4,928 87
Holiday time	790 91
Vacation time	1,341 73
Military roll	252 52
Miscellaneous rolls:	
Sub chauffeur	\$66 50
On other division	25 54
	<hr/>
	92 04

	<hr/>	\$39,192 88
Printing, postage, stationery		785 57
Advertising		67 90
Telephones		159 74
Travel		322 49
Engineers' instruments, supplies, etc.		300 12
Typewriter inspection		30 00
Miscellaneous office expenses		144 27
	<hr/>	\$41,002 97

(2.) Yard and Stockroom:

Yard:

Employees: Clerk, janitor and watch-	
men	\$3,110 84
Light	117 95
Fuel	189 48
	<hr/>

Carried forward	\$3,418 27
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<i>Brought forward</i>			\$3,418 27	
Repairing buildings:				
Labor of mechanics	\$243 88			
Material	15 50			
	<u>\$259 38</u>			
Miscellaneous repair bills	99 47			
	<u>358 85</u>			
Furnishings and supplies		13 43		
		<u>\$3,790 55</u>		
Stockroom: Stock (material and supplies for bridges)		741 95		
		<u>\$4,532 50</u>		
Stable:				
Employees: Stablemen and teamsters	\$4,834 50			
Feed and straw	1,171 09			
Shoeing and clipping	329 60			
Veterinary	33 05			
Harness and repairs	43 04			
Wagon repairs	318 92			
Miscellaneous stable supplies	34 77			
	<u>6,764 97</u>			
		<u>\$11,297 47</u>		

(3.) Automobiles:

Division engineer:

Wages of chauffeur			\$777 00	
Storage	\$180 00			
Gasolene	218 33			
Repairs	156 25			
Registration fees	25 00			
Supplies and equipment,	67 01			
Tires	\$301 66			
Tubes	35 25			
	<u>336 91</u>			
		983 50		
		<u>\$1,760 50</u>		

Supervisor of Bridges:

Wages of chauffeur			\$493 75	
Storage	\$142 50			
Gasolene	141 59			
Repairs	55 46			
Supplies and equipment,	71 00			
Tires	\$86 03			
Tubes	13 72			
	<u>99 75</u>			
		510 30		
		<u>1,004 05</u>		

Truck:

Wages of chauffeur			\$936 00	
Gasolene	\$176 08			
Repairs	455 00			
Registration fee	8 00			
Supplies and equipment,	21 08			
Tires	\$236 76			
Tubes	23 18			
	<u>259 94</u>			
		920 10		
		<u>1,856 10</u>		

Engineer in charge, Strandway Improvement Repairs,		279 09		
		<u>\$4,899 74</u>		

(4.) BRIDGES.

Expenditures on Tide Water Bridges.

BRIDGES.	Draw-tenders' Salaries.	REPAIRS.			Supplies and Miscellaneous Expenses.	Total.
		Mechanics' Wages.	Material.	Repair Bills.		
Broadway.....	\$9,486 37	\$449 94	\$290 37	\$5,393 43	\$295 18	\$15,915 29
Charlestown.....	12,827 43	786 28	1,078 01	2,733 28	918 87	18,343 87
Chelsea North.....	10,850 75	612 10	57 05	613 08	542 93	12,675 91
Chelsea South.....	9,546 62	2,414 91	739 41	4,389 47	209 79	17,300 20
Chelsea Street.....	7,547 80	472 41	416 00	9 25	185 94	8,631 40
Congress Street.....	9,479 85	1,332 04	1,156 41	573 64	784 10	13,326 04
Dorchester Avenue.....	9,448 03	859 37	335 40	999 51	227 83	11,870 14
Dover Street.....	9,538 22	595 94	439.99	597 21	141 06	11,312 42
Granite Avenue.....	2,070 36	113 13	7 16	55 64	66 07	2,312 36
L Street.....	9,588 25	1,086 85	380 53	111 95	166 73	11,334 31
Malden.....	9,508 59	333 87	121 42	90 85	177 38	10,232 11
Meridian Street.....	9,882 38	775 40	275 36	217 31	266 46	11,416 91
Neponset.....	2,498 25	404 00	163 12	76 79	10 41	3,152 57
Northern Avenue.....	10,958 76	1,900 40	2,577 77	3,182 16	4,062 99	22,682 08
Summer Street.....	9,496 33	806 32	969 99	338 21	278 49	11,889 34
Warren.....	9,451 88	983 90	1,263 07	1,817 64	858 71	14,375 20
Western Avenue.....	398 84	.....	.....	113 61	.....	512 45
Totals.....	\$142,578 71	\$13,926 86	\$10,271 06	\$21,313 03	\$9,192 94	\$197,282 60

Repairs on Inland Bridges.

BRIDGE.	Labor and Material.
Athens street.....	\$371 10
Austin street.....	60 93
Albany street (Boston & Albany).....	228 65
Allston.....	659 86
Ashmont.....	238 57
Bennington street.....	809 09
Berkeley street.....	165 28
B ue Hill avenue.....	306 18
oston street.....	246 38
Carried forward.....	\$3,086 04

Repairs on Inland Bridges.—Continued.

BRIDGE.	Labor and Material.
<i>Brought forward</i>	\$3,086 04
Brooks street.....	69 35
Baker street.....	33 11
Beacon street (Fens).....	4 20
Beacon street (Boston & Albany).....	1,608 24
Boylston street (Boston & Albany).....	620 89
Broadway (Boston & Albany).....	478 77
Berwick park.....	32 00
Bolton street.....	53 56
Brookline avenue.....	119 08
Canterbury (at Ashland street).....	53 37
Columbus avenue.....	232 34
Commercial Point.....	414 97
Cambridge street (Boston & Maine).....	83 16
Central avenue.....	282 96
Chelsea Bridge (Boston & Maine).....	1,447 85
Dartmouth street.....	521 15
Dorchester avenue (railroad).....	247 08
Dana avenue (Hyde Park).....	211 09
Everett street.....	679 63
Florence street.....	979 88
Ferdinand street.....	1,231 35
Freeport street.....	11 74
Glenwood avenue (Hyde Park).....	100 40
Gainsborough street.....	158 75
Gold street.....	12 00
Hyde Park avenue (over Mother Brook).....	235 87
Hyde Park avenue (over Stony Brook).....	92 51
Hyde Park avenue (over "Y" railroad).....	44 00
Harvard street.....	184 32
Huntington avenue.....	2,535 00
Irvington street.....	52 50
Leyden street.....	1 20
Milton street (Hyde Park).....	73 85
Massachusetts avenue (over Providence Division).....	189 42
Massachusetts avenue (over Boston & Albany).....	20 31
<i>Carried forward</i>	\$16,151 94

Repairs on Inland Bridges.—Concluded.

BRIDGE.	Labor and Material.
<i>Brought forward</i>	\$16,151 94
New Allen street (Hyde Park).....	16 75
Oakland street.....	122 64
Perkins street.....	198 58
Reservoir road.....	95 56
Redfield street.....	211 65
River street (Hyde Park).....	10 00
Summer street (over A street).....	75 77
Summer street (over B street).....	677 28
Summer street (over C street).....	23 20
Shawmut avenue.....	120 32
Silver street.....	291 56
Southampton street (over railroad).....	249 57
Southampton street (sluiceway).....	14 24
Sprague street.....	142 59
Spring street.....	25 75
Tollgate way.....	334 52
West Fourth street.....	925 92
West Newton street.....	202 70
West Rutland square.....	13 50
Webster street.....	25 32
Miscellaneous:	
Removing snow and cleaning inland bridges, labor.....	2,916 44
Total.....	\$22,845 80

SUMMARY OF EXPENDITURES.

(1) Administration	\$41,002 47
(2) Yard, stockroom and stable	11,297 47
(3) Automobiles	5,019 74
(4) Bridges	220,128 31
(5) Public landing	399 66
	<u>\$277,847 65</u>

For expenditures on Boston and Cambridge bridges, see pages at end of report.

EXPENDITURES FROM SPECIAL APPROPRIATIONS.

ALBANY STREET BRIDGE (FREIGHT TRACKS).

Wages of flagmen	<u>\$46 99</u>
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BROADWAY BRIDGE (OVER BOSTON & ALBANY RAILROAD).

Engineering	<u>\$85 84</u>
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BROADWAY BRIDGE, REBUILDING.

Engineering	\$61 11		
Electric light cable	72 25		
Lumber for motor house	38 45		
Miscellaneous, advertising, etc.	34 13		
Paid Barnes-Pope Company on contract for navigation lights	\$355 00		
Paid R. & S. Machine Company on contract for ladders for navigation lights	423 00		
		778 00	
			<u>\$983 94</u>

CAMBRIDGE BRIDGE, PAINTING AND REPAIRING.

Paint	\$105 30		
Labor, painting	25 00		
Analysis of paint	40 00		
Salary of inspector	90 00		
Fares, telephones, etc., of inspector	5 45		
Paid Connors Brothers on contract for painting	\$6,220 00		
Less amount paid in 1915	5,006 50		
	\$1,213 50		
Less amount withheld	150 80		
	\$1,062 70		
Less amount paid by City of Cambridge (one half)	531 35		
	\$531 35		
Less amount of claim filed for bill due	60 00		
		471 35	
			<u>\$737 10</u>

CHELSEA BRIDGE SOUTH.

Engineering	\$415 95		
Borings	611 78		
Miscellaneous (fares, etc., of engineers)	7 45		
			<u>\$1,035 18</u>

DOVER STREET BRIDGE.

Engineering	\$44 44		
Advertising	8 20		
Gears	178 57		
Electrical machinery	339 60		
Paid George T. Rendle Company on contract for building fenders,	\$2,853 03		
Less amount paid in 1915	2,390 23		
		462 80	
Paid R. & S. Machinery Company on contract for draw machinery	\$1,385 97		
Less amount paid from maintenance appropriation	340 45		
		1,045 52	
			<u>\$2,079 13</u>

MALDEN BRIDGE.

Paid Hugh Nawn Contracting Company on contract for reconstruction of bridge	\$57,558 43		
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SPRING STREET BRIDGE.

Engineering	\$831 49	
Inspection	130 00	
	<hr/>	\$961 49
Iron fence		39 70
Paid New England Cement Gun Company cement work		1,003 94
Paid Clark & Gore on contract for building bridge	\$13,357 32	
Less amount paid in 1915 (unfinished)	10,508 55	
	<hr/>	2,848 77
Paid George T. Rendle Company on contract for building approach, Less amount paid in 1915	\$1,116 13 682 08	
	<hr/>	434 05
		<hr/> <u>\$5,287 95</u>

SUMMER STREET BRIDGE (OVER NEW YORK, NEW HAVEN & HARTFORD RAILROAD).

Paid W. A. Murtfeldt Company on contract for repairing sidewalks	\$2,417 85
Less amount paid in 1915	2,055 17
	<hr/> <u>\$362 68</u>

STRANDWAY AND OLD HARBOR IMPROVEMENT.*

Engineering	\$3,196 66	
Inspection	337 50	
	<hr/>	\$3,534 16
Wages of carpenters on Sewer Division rolls	97 50	
	<hr/>	\$3,631 66
Advertising, printing and postage		330 36
Telephones		20 33
Miscellaneous office expenses: furnishings, office supplies, etc.		107 90
Photos and blueprinting		166 11
Fuel		20 25
Borings		797 81
Moving building		50 00
		<hr/> <u>\$5,124 42</u>

* This work is being done under the supervision of the division engineer of the Bridge and Ferry Division.

The cost of sewerage works on this improvement is known under the head of "Sewer Service."

SUMMARY.

Expended from Special Appropriations in Charge of Bridge Service.

	Balances from 1915.	Total Credits for 1916.	Expended 1916.	Total Expended to January 31, 1917.	Balances Unexpended, January 31, 1917.
Albany Street Bridge (freight tracks).....	\$421 52	\$421 52	\$46 99	\$625 47	\$374 53
Broadway Bridge (over Boston & Albany Railroad).....	3,926 45	3,926 45	85 84	159 39	3,840 61
Broadway Bridge, rebuilding.....	29,072 39	8,029 74	983 94	128,122 93	7,045 80
Cambridge Bridge, painting and repairing.....	6,054 45	6,054 45	737 10	6,682 65	5,317 35
Central Avenue Bridge.....	735 65	735 65	.....	164 35	735 65
Chelsea Bridge South.....	4,199 46	21,067 10	1,035 18	71,835 72	20,031 92
Dover Street Bridge.....	2,179 13	2,079 13	2,079 13	5,000 00	
Malden Bridge.....	.....	57,558 43	57,558 43	57,558 43	
Meridian Street Bridge.....	15,152 62	15,152 62	.....	.....	15,152 62
Spring Street Bridge.....	5,427 37	6,927 37	5,287 95	17,860 58	1,639 42
Summer Street Bridge (New York, New Haven & Hartford Railroad).....	1,862 36	1,862 36	362 68	2,495 32	1,499 68
Winthrop Bridge.....	4,466 56	4,466 56	.....	50,533 44	4,466 56
Strandway and Old Harbor improvement.....	.....	599,000 00	5,124 42	5,124 42	593,875 58
	\$73,497 96	\$727,281 38	\$73,301 66	\$346,162 70	\$653,979 72

INCOME.

The total amount received by the City Collector on account of bridges was \$2,891.56. The items are as follows:

From town of Dedham as its portion of expense of rebuilding Spring Street Bridge	\$1,500 00
From town of Milton as its portion of the expense of maintenance and repairs of Granite Avenue Bridge	677 25
From Boston & Albany Railroad for its portion of expense of repairs to Albany Street Bridge	687 31
Sale of old material	17 00
Damage to Bridge Service property	10 00
	<hr/>
	<u>\$2,891 56</u>

BRIDGE SERVICE CONSTRUCTION WORK, 1916-1917.

Ainsworth Street Footway.

Under an order approved August 7, 1915, the Street Commissioners laid out a footway in extension of Ainsworth street, West Roxbury, between Belgrade avenue and Tyndale street, a portion of which was under the tracks of the New York, New Haven & Hartford Railroad, the width of the layout being 10 feet.

Plans were prepared for the work by this division, providing for carrying only the two tracks of the railroad now laid over the subway, and bids on these plans were received. Before the contract was made, however, the railroad company requested that the side walls of the tunnel be built of sufficient length to enable the tunnel to be extended to provide for two additional tracks, should it be found desirable at any future time to lay these tracks. All bids were accordingly rejected and the plans modified to comply with this request of the railroad company.

A contract was made with the Charles J. Jacobs Company, the lowest bidder, dated March 15, 1916, for doing the work in accordance with the new plans. Work was begun under this contract June 23, 1916, and completed November 18, 1916, the amount paid under the contract being \$6,027.34.

Arrangements were made with the New York, New Haven & Hartford Railroad Company for supporting its tracks by trestle work during the progress of the work. The bill for this work has not been rendered by the railroad company at the date of this report.

The length of the footway is 277 feet 8 inches; the approach from Belgrade avenue is 145 feet 6 inches long; that from Tyndale street, 90 feet 6 inches long, and the tunnel under the railroad is 41 feet 8 inches long. From Belgrade avenue the surface of the footway descends at a uniform gradient of about 6.6 feet per 100 feet to the tunnel. It is practically level through the tunnel, then ascends by three short flights of six steps each and then continues at a uniform ascending gradient at 8.9 feet per 100 feet to Tyndale street.

The structure under the railroad tracks is a reinforced concrete arch tunnel, 7 feet wide in the clear and 7 feet 11 inches high at the center. The side walls are reinforced with two lines of 1-inch square twisted steel rods spaced 9 inches on center in each line; the arch is reinforced with twenty-one 10-inch steel beams weighing 44 pounds per foot, 9 feet long, placed 2 feet on centers, crossway of tunnel, and 1 inch square, twisted steel rods, 8 inches on centers, running lengthwise. The floor also has 1-inch square, twisted rods 9 inches on center. The arch is $17\frac{1}{2}$ inches thick at crown and is covered with four thicknesses of roofing felt, thoroughly mopped, this waterproofing being carried well down the surface to the springing lines. The side walls of the tunnel are 18 inches thick; the floor is 24 inches thick, with granolithic wearing surface. The treads of the steps also have a granolithic wearing surface.

The side walls and the floor of the open cut approaches to the tunnel are of the same thickness as in the tunnel and the reinforcement is similar, except that the two lines of rods are carried only a short distance outside the ends of the tunnel, a single line being used for the rest of the walls, except about 30 feet at the Belgrade street end, where the wall was not of sufficient height to require any reinforcement. For a length of about 50 feet at the Tyndale street end, and about 44 feet at the Belgrade avenue end, no side walls were built, the footway being widened to 10 feet, the full width of the taking, only a low curb 8 inches wide being built at the Tyndale street end to support the lawns of the adjoining estates.

The masonry of the entire structure is of Portland cement concrete, composed of one part cement, two parts sand and four parts broken stone. All concrete of the arch, side walls and floor was waterproofed by the admixture of the Keneally Waterproof Compound, applied under the direction of the National Waterproofing Company.

A substantial wrought-iron pipe rail fence was built across the end of the tunnel and for the entire length of the side walls of the approaches; oak handrails were also built at the stairs. A line of 10-inch vitrified sewer pipe was laid on the center line of the footway from a catch-basin at the head of the stairs near the Tyndale street end and connected with the sewer in Belgrade avenue. A second catch-basin was built at the foot of

the incline of the approach from Belgrade avenue and provision made for the surface water collected in the footway to reach the drain pipe at the catch-basins through drop inlets protected by iron gratings built in the floor. A manhole was also built in the sidewalk of Belgrade avenue on the center line of the drain pipe.

The tunnel is lighted by three 60 candle power electric lamps set in the underside of the arch.

Broadway Bridge (over Fort Point Channel).

A contract for cleaning and painting the fixed spans of this bridge, between Lehigh and Foundry streets, including spans over these streets, was made with Maurice M. Devine, dated September 30, 1916, and at the date of this report the work is practically completed except over the main tracks of the New York, New Haven & Hartford Railroad Company.

As the work over these tracks can only be done on Sundays and then only with many interruptions, the completion of the contract has been seriously delayed, but it is now expected that the work will be all done by April 1.

The steel work of the portion north of the draw span was cleaned by the wire brush process and that south of the draw by the sand blast process; all heavy rust scales, however, were removed by hammers and chisels before the application of either process. The coats of paint were applied in a most thorough manner, the paint being furnished by the contractor, prepared under formulas furnished by the city. The first coat was sublimed blue lead and linseed oil paint; the second a white lead-zinc and linseed oil paint. The amount paid under this contract to date has been \$4,914.70.

Navigation lights have been installed on the draw and piers of this bridge under a contract with the Barnes-Pope Electric Company, dated March 8, 1916, at a cost of \$355. Ladders and platforms for access to the lights have been built under a contract with the R. & S. Machine Company at a cost of \$423.

Charlestown Bridge (Boston to Charlestown).

The easterly or downstream sidewalk of the part of Charlestown Bridge, supported by plate girders, was rebuilt of artificial stone under a contract with the W. A. Murtfeldt Company, dated September 5, 1916. The

work was completed December 9, 1916, the total amount paid under the contract being \$1,701.68.

The old asphalt walk which was put down in 1899, at the time the bridge was built, had become badly worn; in some places the wearing surface had entirely disappeared, leaving the coarse material of the base for the surface. The old walk was entirely removed, the surface of buckle plates mopped with hot asphalt and the depressions filled with an asphalt mastic applied hot and brought to a smooth surface at the level of the crown of the buckle plates. On this base an artificial stone walk was laid, 3 inches in thickness, reinforced with an electrically welded fabric made by the Clinton Wire Cloth Company. As there was considerable vibration in the floor of this bridge it was felt that heavy reinforcement was necessary. The fabric used was made of No. 13 galvanized wire with 4-inch by 4-inch mesh, cut in sheets about 4 feet by 5 feet, and laid so that the blocks in the walk should have a margin of 1 inch outside the reinforcement. The fabric was placed at a uniform depth of 2 inches below the finished surface of the walk.

The work and material were in accordance with the standard specifications of this department for artificial stone walks. A bond was filed guaranteeing the maintenance of the work for a period of one year from its completion.

In the turning mechanism of the draw span of this bridge some new pinions have been substituted for worn ones which had been in service for seventeen years, and some overhauling and additions have been made to the end lifts.

Chelsea Bridge (over Boston & Maine Railroad).

Under a contract dated August 4, 1916, made with W. S. Rendle, the sidewalk surface of this bridge has been relaid with 2-inch yellow pine plank for the full length of the viaduct over the railroad tracks. Work was completed October 7, 1916, and the amount paid under the contract was \$1,408.12.

In advance of the work done by the city the Boston & Maine Railroad Company removed the old sidewalk planking and renewed such stringers and curb sticks as were found to be in poor condition. The railroad company also did a small amount of painting on the sidewalk brackets.

Chelsea North (from Charlestown to Chelsea).

On account of leakage through the deck of the draw span, sheet metal coverings have been placed over the motors and some of the machinery parts. This was done under an agreement with Peter Robertson for the sum of \$159.

Chelsea Bridge South (over South Channel, Mystic River).

The floor of the draw span of the temporary bridge at Chelsea Bridge South, which has been in continuous use at this location since March, 1914, and which had also been used as a temporary structure during the rebuilding of Chelsea Bridge North from August, 1912, to June, 1913, was found to be in such a condition that it was deemed necessary to renew the stringers and planking at once. A contract was made with M. S. Kelliher, dated November 10, 1916, for doing this work, and it was completed December 7, 1916. The amount paid under the contract was \$3,095.20.

Because of the heavy traffic over this bridge during the day the contractor was required to do all of his work on the draw between the hours of 8.30 p. m. and 6 a. m., during which hours all street car traffic was taken off the draw and only a single line of vehicle traffic was allowed on the draw; foot travel was maintained at all times on the sidewalk.

The Bay State Street Railway Company coöperated with the city in the removal of the floor, removing and replacing its rails as required to facilitate the work and furnishing the electric light used.

Both the upper and lower planking of roadway were entirely replaced with 2-inch and 4-inch spruce plank and all the stringers which were not in good condition were replaced with new yellow pine timber of the same dimensions as the old. The sidewalk was not disturbed, a new line of stringers being laid at the curb line to support the ends of the planking.

The ends of the draw fender pier and the channel face of that pier have also been repaired and are now in fairly good condition. At the downstream end some new piles were driven and capped, new wales and planking put on channel face and the corner irons renewed, which work was done by W. H. Ellis & Son Company at a cost of \$238.40. Repair work has been done on

the machinery of this draw by the Boston Bridge Works and the R. & S. Machine Company during the year, costing \$121 in all.

Congress Street Bridge (over Fort Point Channel).

In February of this year the center bearing of the draw was found to be in a dangerous condition and repairs were made in the shortest possible time. New discs and castings were substituted for the old ones and all put in a good working condition. Total cost, \$192.

Dover Street Bridge (over Fort Point Channel).

The old machinery on this draw having become obsolete and much worn it was decided to install a new and more modern equipment. Accordingly after advertising a contract was made with the R. & S. Machine Company for furnishing and installing new turning machinery, which was completed in July at a cost of \$1,225, the city furnishing the gears and electrical equipment, costing \$534, making a total cost of \$1,739.

Dorchester Avenue Bridge (over Fort Point Channel).

In December a coal barge ran into the draw, fracturing one of the main girders. This necessitated a new girder or extensive repairs to the old one. As the latter plan seemed to require the least time the Boston Bridge Works were set to work immediately and the repairs made at a cost of \$426.

Gove Street Footbridge, East Boston (over Boston & Albany Railroad).

As stated in the report for last year the concrete foundation piers for this bridge were completed December 6, 1915, at a cost of \$860, and a contract made with the Boston Bridge Works, Inc., for the steel superstructure.

The work of erecting the bridge was begun August 15, 1916, and was completed October 5, 1916. The amount paid under the contract was \$8,702.05.

The steel structure is the longest single span footbridge in the city, the entire width of the railroad property being crossed by a single span of 157 feet 1½ inches between centers of end bearings and provides a clear headroom of 22 feet above the top of the rails.

The bridge consists of two steel riveted through trusses, 20 feet deep at the center and 11 feet 6 inches deep at ends, placed 9 feet apart on centers. The ends rest on steel towers about 22 feet 6 inches high, from which steel stairways descend to the street level.

The floor consists of 8-inch I-beams, 12 feet 5 inches on centers, on which rest four lines of 3-inch by 12-inch yellow pine stringers carrying the surface planking of 2-inch yellow pine. A railing of excelsior rust proof wire fencing, 4 feet 6 inches high with 2-inch by 6-inch mesh, is attached to each truss.

The stairs rest on steel trestles, consisting of 8-inch by 8-inch H-section columns braced together with riveted angle bracing. The treads of the steps are 2-inch yellow pine plank and a three-rail gas pipe fence protects the sides of the stairway.

Huntington Avenue Bridge (over Boston & Albany Railroad).

When the present bridge was built in 1909 the roadway was surfaced with brick block pavement. After seven years' wear, although it had been patched a number of times, the surface was in such a condition that it could not be maintained longer with safety.

A contract was accordingly made with the Central Construction Company, dated September 20, 1916, for repaving the entire roadway with wood blocks, except between the rails of the Boston Elevated Railway Company and for a width of 8 inches outside each rail. The old concrete surface was scraped and cleaned until free from all loose material and on this surface was laid three thicknesses of roofing felt thoroughly mopped with asphalt. A thin layer of mortar, equal parts cement and sand, was spread on the waterproofed surface and struck to a true surface exactly parallel to the top of the finished pavement. The wood blocks were 4 inches deep, 4 inches wide and not less than 8 inches long, and in all other respects in accordance with the standard specifications of this department — 1916 edition. They were also laid as required under these specifications, the joints being filled with asphalt filler. Expansion joint fillers were laid along each parapet. The granite block pavement was laid in accordance with the standard specifications of this department; joints filled with asphalt filler.

The work was completed December 11, 1916, the total amount paid under the contract being \$2,535.

During the progress of this work the Boston Elevated Railway Company brought its track to the proper grade and electrically welded the rails to the ties. The railroad company laid all the granite paving between its rails.

Morton Street Bridge (over the New York, New Haven & Hartford Railroad, Midland Division).

Although the street on both sides of the bridge over the railroad tracks had been built at a width of 80 feet, as laid out by the Street Commissioners, the width of the bridge maintained by the railroad company was only 30 feet and no provisions made for sidewalks.

With the consent of the railroad company two sidewalks, each 5 feet wide, have been built by the city entirely independent of the old bridge. The total cost of this work, including concrete additions to the masonry abutment, was \$375.

Northern Avenue Bridge (over Fort Point Channel).

The pointing in some of the joints of the circular masonry wall which surrounds the turntable of the draw span of this bridge and acts as a dam to keep out the tidewater had become so badly disintegrated as to allow considerable seepage through the masonry.

Only the joints just below high water were found to be in bad condition and from these the poor mortar was removed and they were repointed with rich Portland cement mortar, to which was added a liquid waterproof compound. The work was done by the National Waterproof Company at a cost of \$305.14.

Repairs have been made on the end lifts of the draw-span where parts were found to be badly worn. Pins have been trued up and bronze bushings placed in sixteen of the bearings. The work was done under a contract with the R. & S. Machine Company at a cost of \$1,396.

Spring Street Bridge (over Charles River).

The Mayor of the City of Boston, the chairman of the County Commissioners of Norfolk County and the chairman of the Board of Selectmen of the town of Dedham were constituted a commission by chapter 235 of the Acts of the Legislature of 1915, and authorized to

widen Spring Street Bridge. A contract was made with Clark & Gore for doing this work, dated July 28, 1915.

Work was begun September 29, 1915, but before the upstream half of the bridge was ready for travel, it was necessary, about the middle of January, to shut down all construction, and work was not resumed until the middle of May of last year. The upstream half of the roadway was opened to travel June 22, 1916, the downstream half on October 9, 1916, and the entire work was completed November 16, 1916.

The old bridge was a stone and masonry structure about 150 feet long and 25 feet wide, having five segmental arches, each of about 19 feet span. The foundations of the arches rested on a crib work or grillage of wood.

The new bridge is 57 feet wide from face to face of coping at the center of the arches and 55 feet wide from center to center of railings, providing two sidewalks of 8 feet each and a roadway 39 feet wide between curb lines. The widening was made by the extension of the arches, piers and abutments of the old bridge 22 feet on the south or upstream side and 10 feet on the north or downstream side. Borings taken before the plans were made indicated that it would not be necessary to drive piles for foundations except at the extensions of the abutment on the Dedham side. Piles were driven only under the northerly extension of the Dedham abutment, as it was found after driving some test piles that the material was so hard that piles would not penetrate sufficiently into this material to be of any value. The small amount of soft material over the hard gravel was therefore removed and the concrete placed directly on the gravel. Steel sheet piling was driven close to and along the ends of each pier on the north side and at both ends of each abutment to prevent the excavation from undermining the foundations of the old bridge. It was not driven at the ends of piers on the south side as the dredging was kept far enough back to avoid any danger of disturbing the material under the old foundation. Excavations for the foundation of the extensions were carried down to coarse gravel varying from 11.5 to 6 feet below the springing line of the arches. The excavation at the Dedham abutment was carried down to 9½ feet below the springing line and made level at that elevation, and where piles were

driven they were cut off 1 foot higher. The excavation at the Boston abutment was carried to $8\frac{1}{2}$ feet below the springing line on the front and sloped up 2 feet to the back line of the foundation.

A curbing or cofferdam of tongued or grooved 4-inch spruce was built at the foundation of the piers and abutments to form a reasonably water-tight dam in which concrete was deposited, and after the foundations were completed the sheeting was cut off at about extreme low water.

The concrete of the foundations, arches and spandrel walls was composed of one part Portland cement, two parts sand and four parts clean pebbles or broken stone. The contract provided for the exposed concrete surfaces being smoothed and trued after the forms had been removed and then treated with a thin cement mortar wash, thoroughly rubbed down with a piece of carborundum. The commission, however, decided to point the surfaces of the spandrel walls, leaving only the coping, pilasters and a ring 12 inches wide at each arch with smooth surface. The top surface of the coping, which was flush with the sidewalks, has a granolithic wearing surface. After the completion of the concrete masonry, and before any filling had been done, the tops of the arches and abutments and the inner surfaces of the spandrel walls were made smooth by a coating of mortar and then covered with four thicknesses of roofing felt, mopped in the most thorough manner with hot asphalt. To protect the waterproofing from any coarse material in the filling a layer of asphalt mastic, 1 inch thick, made of four parts dry sand and one part asphalt, was put on hot over the tops of the arches and abutments. Drain pipes, 6 inches in diameter, are built in the concrete extensions of each pier to conduct away any water that may seep through the filling.

The filling behind the spandrel walls and abutments was made of clean gravel in compact layers, thoroughly tamped or rolled.

The Bay State Street Railway Company relayed its track on the bridge and paved with granite blocks on a concrete base the area between its rails and 18 inches outside each rail.

The roadway surface is a broken stone surfacing, bound with Bermudez road asphalt 6 inches in thickness when completed. The lower course was No. 1 stone, $2\frac{1}{2}$ to $1\frac{1}{4}$ inches in diameter, 4 inches in thickness after rolling.

The upper course was No. 2 stone, $1\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter, 2 inches in thickness after rolling. Upon the upper course Bermudez road asphalt was uniformly applied by a pressure machine at the rate of $1\frac{3}{4}$ gallons to each square yard of surface and covered with clean pea stone in sufficient quantity to fill the surface voids and then thoroughly rolled. A second application of asphalt at the rate of $\frac{1}{2}$ gallon per square yard was then applied and covered with a coating of pea stone and then the whole thoroughly rolled.

A bond was furnished guaranteeing the maintenance of the roadway for one year after its completion. The original contract called for a crushed stone sidewalk. The commissioners, however, decided to build a granolithic walk in place of crushed stone at an additional total cost of \$220. The walk was constructed in accordance with the standard specifications of the City of Boston for artificial stone sidewalks. The granite edge-stones, both as to material and workmanship, were in accordance with the standard specifications of the city. The fences of the old bridge were put in good condition and replaced on the coping of the new bridge. Near the curb lines at each sidewalk a 6-inch drain pipe was set in the concrete of each arch, which terminated in a rectangular reflector, 16 inches by 24 inches, in the crown of the arches in which it is planned to place electric lights to illuminate the water ways under the bridge.

The Edison Electric Illuminating Company has built a brick manhole with iron frame and cover at each lamp and laid a 2-inch duct in each walk connecting the manholes with its electric lighting service at the Boston end of the bridge.

Final payment has not yet been made under the Clark & Gore contract at the date of this report, but the final estimate, including all extras, will be \$16,220.

The masonry of the old arches was laid dry and the ring stone had many wide open joints; some of the smaller face stones had fallen out, leaving large voids. It was felt that if the joints and face voids could be filled with concrete or cement mortar the arches would be strengthened and the life of the bridge prolonged. Several methods for accomplishing this end were considered and finally arrangements were made with the New England Cement Gun Company for filling the joints and voids with "Gunitite." The "Gunitite" was composed of one part Portland cement and three parts sharp,

clean sand and was forced into the openings under a pressure of 30 pounds per square inch. The cost of this work was \$1,068.87, a small amount of which has not been paid at this date.

The act creating the commission did not place the construction of the approaches in their hands but left with each municipality the work of building the approach on its side of the river. The plans for both approaches, however, were made by this division; that for the Dedham side after consultation with its town engineer.

The contract for the Boston approach was made by the Commissioner of Public Works with the George T. Rendle Company, dated August 5, 1915, and that for the Dedham approach was made with the same company under date of July 28, 1915, by the selectmen of that town. The construction of the Dedham approach was entirely in charge of its town engineer. Although the work of building the Boston approach was completed October 16, 1916, at the date of this report final payment has not been made.

The work for the City of Boston covered by its contract was the building of a concrete return wall about 44 feet long on the new northerly side line of the street and a concrete wing wall about 22 feet long on the southerly side of the street to retain the filling of the widened street. The concrete was composed of one part Portland cement, two and one half parts sand and five parts broken stone; the quality of materials and workmanship being the same as that of the concrete in the bridge. The filling, edgestone and roadway surfacing were the same as described for corresponding work on the bridge. The sidewalks of the approach were of crushed stone. A pipe rail fence was built on the return walls. The posts on the north side were set in the concrete coping of the wall and those on the southerly side were set in concrete bases 12 inches square and 4 feet deep. The rails and pipes were made of 2-inch diameter wrought-iron extra heavy pipe. The contract price for the work was \$1,459; total amount paid is \$1,116.13.

Summer Street Bridge (over Point Fort Channel).

The machinery for running this draw has been overhauled and new gears and parts substituted where old ones were badly worn. The work was done by A. P. Carroll at a cost of \$289.

Warren Bridge (from Boston to Charlestown).

The downstream fender guard at the channelway of the draw has been rebuilt. New piles and spur shores were driven and all timber work renewed. The cost of this work was \$774.61.

Last November an examination was made of the roadway flooring of the fixed portions of this bridge. The floor planking and stringers were examined with special care as it was known that portions of the planking and the tops of many of the stringers were badly decayed. A large number of borings were made in the 6-inch yellow pine deck and the stringers, and the condition was found to be more serious than had been anticipated. It was deemed necessary for safety during the winter to strengthen the planking at once and more than 4,000 feet B. M. spruce planks were spiked to the stringers to afford additional support for ends of planking.

Wordsworth Street Footbridge (over Boston, Revere Beach & Lynn Railroad).

A contract was made with Daniel Marr & Son Company, the lowest bidder, dated March 21, 1916, for building a footbridge over the tracks of the Boston, Revere Beach & Lynn Railroad. The work was begun August 10, 1916, and was completed November 11, 1916. The amount paid under the contract was \$2,266.60.

The bridge is of the riveted bowstring type and consists of two girders of 74 feet span center to center of bearings, 10 feet high at the center and spaced 7 feet apart on centers. The floor consists of 8-inch channel floor beams, 9 feet 3 inches on centers, with four lines of 3-inch by 8-inch yellow pine stringers and 2-inch yellow pine floor plan. A rail fence of the Excelsior Rust Proof type, 4 feet 6 inches high, is attached to each girder, the wires in the fence being No. 9 horizontal and No. 8 vertical in 2 feet by 6 inch-mesh.

At the easterly end the bridge rests on a concrete pier 10 feet long and 22 inches wide, from which a flight of concrete steps leads to the street level. At the westerly end a similar concrete pier supports the bridge and a landing of about 8 feet by 7 feet is provided from which two flights of steps lead to street level. The landing consists of a concrete slab $6\frac{3}{4}$ inches thick, reinforced with eight lines of $\frac{1}{2}$ -inch twisted steel rods. All steps

are of reinforced concrete and were cast in moulds before being set. They are 6 feet 11 inches long, 14 inches wide. The six on the east side are $6\frac{1}{2}$ inches high; the six on the west side $6\frac{3}{4}$ inches high. The reinforcement for each step was three lines of $\frac{1}{2}$ -inch twisted steel rods. The exposed faces of all steps have granolithic surfaces. The concrete slab and steps rest on the concrete side-walls, the spaces under the slab and steps being filled in solid with soft coal cinders. The sides of the steps are protected by two rail pipe fences.

Air Tanks.—Fourteen air tanks on various bridges have been overhauled and changes made to meet the requirements of the State Boiler Inspectors' Department, under a contract with the R. & S. Machine Company for \$537.

LIST OF BOSTON BRIDGES.

I. — BRIDGES WHOLLY MAINTAINED BY BOSTON.

[In the list those marked with an asterisk (*) are over navigable waters, and are each provided with a draw.]

In Charge of Bridge and Ferry Division.

- Allston, over Boston & Albany Railroad at Cambridge street, Brighton.
- Ashland street, over New York, New Haven & Hartford Railroad, Providence Division, West Roxbury.
- Athens street, over New York, New Haven & Hartford Railroad, Midland Division.
- B street (footbridge), over Neponset river, Hyde Park.
- Baker street, at Brook Farm, West Roxbury.
- Beacon street, over outlet to Back Bay Fens.
- Beacon street, over Boston & Albany Railroad.
- Bennington street, over Boston, Revere Beach & Lynn Railroad.
- Berkeley street, over Boston & Albany Railroad.
- Berwick park (footbridge), over New York, New Haven & Hartford Railroad, Providence Division.
- Blakemore street, over New York, New Haven & Hartford Railroad, Providence Division.
- Bolton street, over New York, New Haven & Hartford Railroad, Midland Division.
- Boylston street, over Boston & Albany Railroad.
- Broadway, over Boston & Albany Railroad.
- * Broadway, over Fort Point channel.
- Brookline avenue, over Boston & Albany Railroad.
- Brooks street, Brighton.
- Byron street, over Boston, Revere Beach & Lynn Railroad.
- Charlesgate, in Fens, over Ipswich street.
- * Charlestown, from Boston to Charlestown.

- * Chelsea South (temporary), over south channel, Mystic river.
- * Chelsea street, from East Boston to Chelsea.
- Columbus avenue, over Boston & Albany Railroad.
- * Commercial Point, or Tenean, Dorchester.
- * Congress street, over Fort Point channel.
- Dana avenue, over Neponset river, Hyde Park.
- Dartmouth street, over Boston & Albany Railroad.
- * Dorchester avenue (formerly Federal street), over Fort Point channel.
- * Dover street, over Fort Point channel.
- Fairmount avenue, over Neponset river, Hyde Park.
- Ferdinand street, over Boston & Albany Railroad.
- Florence street, over Stony brook, West Roxbury.
- Gainsborough street (footbridge), over New York, New Haven & Hartford Railroad, Providence Division.
- Glenwood Avenue East (footbridge), over Neponset river, Hyde Park.
- Glenwood Avenue West, over Mother brook, Hyde Park.
- Gold street, over New York, New Haven & Hartford Railroad, Midland Division.
- Gove street (footbridge), over Boston & Albany Railroad, East Boston.
- Huntington avenue, over Boston & Albany Railroad.
- Huntington avenue, over Stony brook, Hyde Park.
- Hyde Park avenue, over Mother brook (at woolen mill), Hyde Park.
- Hyde Park avenue, over Stony brook, West Roxbury.
- Hyde Park avenue, over Stony brook (near Clarendon Hill Station), Hyde Park.
- Ipswich street, in Fens, over waterway.
- Irvington street (footbridge), over New York, New Haven & Hartford Railroad, Providence Division.
- * L street, over Reserved channel, South Boston.
- * Malden, from Charlestown to Everett.
- Massachusetts avenue, over Boston & Albany Railroad.
- Massachusetts avenue, over New York, New Haven & Hartford Railroad, Providence Division.
- * Meridian street, from East Boston to Chelsea.
- Metropolitan avenue (near Clarendon Hills Station), Hyde Park.
- Newburn street, over Stony brook, Hyde Park.
- * Northern avenue, over Fort Point channel.
- Shawmut avenue, over Boston & Albany Railroad and New York, New Haven & Hartford Railroad, Providence Division.
- Southampton street, over South bay sluice.
- Summer street, over A street.
- Summer street, over B street.
- Summer street, over C street.
- * Summer street, over Fort Point channel.

Tollgate way (footbridge), over Providence Division, from Washington street to Hyde Park avenue, Forest Hills.

* Warren, from Boston to Charlestown.

West Newton street, over New York, New Haven & Hartford Railroad, Providence Division.

West River street, over Mother brook, Hyde Park.

West Rutland square (footbridge), over New York, New Haven & Hartford Railroad, Providence Division.

Wordsworth street (footbridge), over Boston, Revere Beach & Lynn Railroad, East Boston.

In Charge of Bridge and Ferry Division and Park and Recreation Department.

Columbia road, over New York, New Haven & Hartford Railroad, Old Colony Division.

Columbia road, over Shoreham street.

In Charge of Park and Recreation Department.

Agassiz road, in Fens.

Audubon road, in Riverway, over Boston & Albany Railroad.

Berners street (footbridge), over Bridle path in Riverway.

Boylston street, in Fens, over waterway.

Bridle path, in Riverway, over Muddy river.

* Castle Island (footbridge), in Marine Park, South Boston, to Castle Island.

Charlesgate, in Fens, over Boston & Albany Railroad.

Circuit drive, over Scarboro pond, in Franklin Park.

Commonwealth avenue, in Fens, over waterway.

Cottage Farm, over Boston & Albany Railroad, at Commonwealth avenue.

Ellicott Arch, in Franklin Park.

Fens, in Fens.

Forest Hills entrance, in Franklin Park.

Leverett pond (footbridge), in Olmsted Park.

Neptune road, in Wood Island Park, over Boston, Revere Beach & Lynn Railroad.

Public Garden (footbridge).

Scarboro pond (footbridge), in Franklin Park.

Wood Island (footbridge), in Wood Island Park.

II.— BRIDGES OF WHICH BOSTON MAINTAINS THE PART WITHIN ITS LIMITS.

In Charge of Bridge and Ferry Division.

Central avenue, from Dorchester to Milton.

* Chelsea North, from Charlestown to Chelsea.

Milton, from Dorchester to Milton.

* Neponset, from Dorchester to Quincy.

Paul's Bridge, over Neponset river, Hyde Park.

Spring street, from West Roxbury to Dedham.

* Western avenue, from Brighton to Watertown.

Winthrop, from Breed's Island to Winthrop.

In Charge of Park and Recreation Department.

Bellevue street, in the Riverway, over Muddy river.

Berners street (footbridge), over Muddy river.

Brookline avenue, in the Riverway, over Muddy river.

Huntington avenue, in the Riverway, over Muddy river.

Longwood avenue, in the Riverway, over Muddy river.

III.— BRIDGES OF WHICH BOSTON PAYS A PART OF THE COST OF MAINTENANCE.

In Charge of Bridge and Ferry Division.

Albany street, over Boston & Albany Railroad (over freight tracks).

Ashmont street and Dorchester avenue, over New York, New Haven & Hartford Railroad, Old Colony Division.

Harvard street, over New York, New Haven & Hartford Railroad, Midland Division.

Morton street, over New York, New Haven & Hartford Railroad, Midland Division.

Norfolk street, over New York, New Haven & Hartford Railroad, Midland Division, near Dorchester station.

Pleasant street, over the subway.

In Charge of Commissioners for Boston and Cambridge Bridges.

Anderson Bridge, from Brighton to Cambridge.

Brookline street, from Brighton to Cambridge.

Cambridge, from Boston to Cambridge.

* Cambridge street, from Brighton to Cambridge.

* Harvard, from Boston to Cambridge.

* Prison Point, from Charlestown to Cambridge.

* Western avenue, from Brighton to Cambridge.

In Charge of Commissioners for Granite Avenue Bridge.

* Granite avenue, from Dorchester to Milton.

IV.— BRIDGES OF WHICH BOSTON MAINTAINS THE WHOLE OR A PART OF THE WEARING SURFACE.

In Charge of the Bridge and Ferry Division.

Austin street, over Boston & Maine Railroad, Charlestown.

Bennington street, over Boston & Albany Railroad.

Blue Hill avenue, over New York, New Haven & Hartford Railroad, Midland Division.

Boston street, over New York, New Haven & Hartford Railroad, Old Colony Division.

Brookline street, Brighton to Cambridge, portion over Boston & Albany Railroad.

Cambridge street, Charlestown, over Boston & Maine Railroad.

Chelsea, over Boston & Maine Railroad.

Curtis street, East Boston, over Boston & Albany Railroad.

Dana avenue, over New York, New Haven & Hartford Railroad, Midland Division, Hyde Park.

Dorchester avenue, over New York, New Haven & Hartford Railroad, Old Colony Division.

Everett street, over Boston & Albany Railroad, Brighton.

Fairmount avenue, over New York, New Haven & Hartford Railroad, Midland Division, and Station street, Hyde Park.

Glenwood Avenue West, over passageway connecting land of the New York, New Haven & Hartford Railroad, Hyde Park.

Hyde Park avenue, over proposed electric connection between Midland and Providence Divisions, New York, New Haven & Hartford Railroad, Hyde Park.

Maverick street, East Boston, over Boston & Albany Railroad.

Milton street, Hyde Park, over New York, New Haven & Hartford Railroad.

Mystic avenue, over Boston & Maine and Boston & Albany Railroads.

New Allen street, Hyde Park, over New York, New Haven & Hartford Railroad.

Norfolk street, over New York, New Haven & Hartford Railroad, Midland Division, near Blue Hill Avenue Station.

Oakland street, over New York, New Haven & Hartford Railroad, Midland Division, Mattapan.

Perkins street (footbridge), over Boston & Maine Railroad.

Porter street, over Boston & Albany Railroad.

Prescott street, over Boston & Albany Railroad.

Redfield street, at Neponset, over New York, New Haven & Hartford Railroad, Old Colony Division.

Reservoir road, Brighton, over Boston & Albany Railroad, Newton Branch.

Saratoga street, over Boston & Albany Railroad.

Saratoga street, over Boston, Revere Beach & Lynn Railroad, East Boston.

Southampton street, over New York, New Haven & Hartford Railroad, Old Colony Division.

Sprague street, over New York, New Haven & Hartford Railroad, Midland Division, and branch of Providence Division, Hyde Park.

Summer street, over New York, New Haven & Hartford Railroad, Midland Division.

Sumner street, East Boston, over Boston & Albany Railroad.

Webster street (footbridge), East Boston, over Boston & Albany Railroad.

West Fourth street, over New York, New Haven & Hartford Railroad, Old Colony Division.

V.—BRIDGES MAINTAINED BY METROPOLITAN PARK COMMISSION.

* Charles River Dam.

Mattapan, over Neponset river.

* North Beacon street, from Brighton to Watertown.

VI.— BRIDGES WHOLLY MAINTAINED BY RAILROAD CORPORATIONS.

1st.— Boston & Albany.

Albany street (over passenger tracks).
Harrison avenue.
Market street, Brighton.
Tremont street.
Washington street.

2d.— Boston & Maine and Boston & Albany Railroads.

Main street.

3d.— Boston & Maine Railroad, Eastern Division.

Wauwatosa avenue, East Boston.

4th.— Boston, Revere Beach & Lynn Railroad.

Everett street.

5th.— New York, New Haven & Hartford Railroad, Midland Division.

Dorchester avenue.
East River street, at River Street Station, Hyde Park.
Silver street.
Washington street, Dorchester.
West Broadway.
West Fifth street.
West Fourth street.
West Second street.
West Sixth street.
West Third street.

6th.— New York, New Haven & Hartford Railroad, Old Colony Division.

Adams street.
Cedar Grove Cemetery.
Medway street.
Savin Hill avenue.

7th.— New York, New Haven & Hartford Railroad, Providence Division.

Albany street.
Baker street, West Roxbury.
Beech street, West Roxbury.
Bellevue street, West Roxbury.
Berkeley street.
Broadway, South Boston.
Canterbury street, West Roxbury.
Castle square.
Centre and Mt. Vernon streets, West Roxbury.
Columbus avenue.
Dartmouth street.

Gardner street, West Roxbury.
Harrison avenue.
Park street, West Roxbury.
Walworth street, West Roxbury.
Washington street.
West street, Hyde Park.
West River street, Hyde Park.

I.	Number wholly maintained by Boston:		
	In charge of Bridge and Ferry Division	64	
	In charge of Bridge and Ferry Division and Park and Recreation Department	2	
	In charge of Park and Recreation Depart- ment	18	
		—	84
II.	Number of which Boston maintains the part within its limits:		
	In charge of Bridge and Ferry Division	8	
	In charge of Park and Recreation Depart- ment	5	
		—	13
III.	Number of which Boston pays a part of the cost of maintenance:		
	In charge of Bridge and Ferry Division	6	
	In charge of Commissioners for Boston and Cambridge Bridges	7	
	In charge of Commissioners for Granite Avenue Bridge	1	
		—	14
IV.	Number of which Boston maintains the whole or a part of the wearing surface		33
V.	Number maintained by Metropolitan Park Commission		3
VI.	Number maintained by railroad corporations:		
	1. Boston & Albany Railroad	5	
	2. Boston & Maine and Boston & Albany Railroads	1	
	3. Boston & Maine Railroad, Eastern Division	1	
	4. Boston, Revere Beach & Lynn Railroad,	1	
	5. New York, New Haven & Hartford Railroad, Midland Division	10	
	6. New York, New Haven & Hartford Railroad, Old Colony Division	4	
	7. New York, New Haven & Hartford Railroad, Providence Division	18	
		—	40
Total number			187

List of Small Bridges or Culverts having Wooden Tops which are Repaired by Bridge and Ferry Division
(Bridge Service). — Walls Repaired and Openings Cleaned by Sewer Service.

Location.	Span, Feet.	Height of Opening, Feet.	Length, Feet.	Side Walls.	Covering.
Ashland and Canterbury streets, near Calvary Cemetery, West Roxbury,	7.6	5.5	75	Stone.	Wood.
Beech street, near Anawan avenue, at Central Station, West Roxbury...	4.0	4.0	50	Stone.	Wood.

Table Showing the Widths of Channelways for Vessels in all Bridges Provided with Draws in the City of Boston in January, 1917.

NAME OF BRIDGE.	Location.	Number of Channelways.	Width.
* Anderson.....	Brighton to Cambridge.....	1	45 feet 0 inches.
Boston Elevated Railway.....	Boston to East Cambridge.....	1	45 " 0 "
Boston & Maine Railroad, Eastern Division.	Boston to Charlestown.....	1	39 " 8 "
Boston & Maine Railroad, Eastern Division.	Over Miller's river.....	1	35 " 0 "
Boston & Maine Railroad, Fitchburg Division.	Boston to Charlestown.....	1	36 " 0 "
Boston & Maine Railroad, Fitchburg Division (for teaming freight).	" "	1	36 " 7 "
Boston & Maine Railroad (freight), Southern Division.	Boston to East Cambridge.....	1	40 " 0 "
Boston & Maine Railroad (passenger), Southern Division.	" "	1	39 " 8 "
Boston & Maine Railroad, Western Division.	Boston to Charlestown.....	1	39 " 4 "
Boston & Maine Railroad, Western Division.	Over Miller's river.....	1	35 " 6 "
Broadway.....	Over Fort Point channel.....	1	50 " 0 "
† Brookline street.....	Brighton to Cambridge.....	1	40 " 0 "
† Cambridge.....	Boston to Cambridge.....	1	50 " 0 "
Cambridge street.....	Brighton to Cambridge.....	1	36 " 6 "
Charles River Dam (lock).....	Boston to East Cambridge.....	1	45 " 0 "
Charlestown (main channel).....	Boston to Charlestown.....	2	{ 50 " 0 "
Charlestown (north channel).....	" "		{ 49 " 9 "
Chelsea (north channel).....	Charlestown to Chelsea.....	2	125 " 0 "
Chelsea (south channel).....	" "	1	48 " 0 "
Chelsea street.....	East Boston to Chelsea.....	1	60 " 0 "
Commercial Point (or Tenean).....	Dorchester.....	1	24 " 0 "
Congress street.....	Over Fort Point channel.....	1	50 " 0 "
Dorchester avenue.....	" "	1	41 " 3 "
Dover street.....	" "	1	40 " 6 "
Grand Junction Railroad.....	Brighton to Cambridge.....	1	39 " 3 "
Grand Junction Railroad.....	East Boston to Chelsea.....	1	60 " 0 "
Granite avenue.....	Dorchester to Milton.....	1	50 " 0 "
Harvard (Boston side).....	Boston to Cambridge.....	2	{ 36 " 7 "
Harvard (Cambridge side).....	" "		{ 37 " 0 "

* Drawless channelway; clear headroom of 12 feet above basin level (about elevation 8.0).
† Drawless channelway; clear headroom of 28 feet above basin level.

Table Showing Widths of Channelways, etc.— *Concluded.*

NAME OF BRIDGE.	Location.	Number of Channelways.	Width.
L street.....	Over Reserved channel, South Boston.	1	39 feet 3 inches.
Malden.....	Charlestown to Everett.....	1	50 " 0 "
Meridian street.....	East Boston to Chelsea.....	1	100 " 0 "
Neponset.....	Dorchester to Quincy.....	1	36 " 0 "
New York, New Haven & Hartford Railroad.	Over Fort Point channel.....	1	41 " 8 "
New York, New Haven & Hartford Railroad, Plymouth Division.	Dorchester to Quincy.....	1	51 " 0 "
North Beacon street.....	Brighton to Watertown.....	1	30 " 0 "
Northern avenue.....	Over Fort Point channel.....	2	75 " 3 "
Prison Point.....	Charlestown to Cambridge....	1	37 " 4 "
Summer street.....	Over Fort Point channel.....	1	50 " 0 "
Warren.....	Boston to Charlestown.....	1	36 " 0 "
Western avenue.....	Brighton to Cambridge.....	1	36 " 0 "
Western avenue.....	Brighton to Watertown.....	1	36 " 0 "

Table Showing Number of Vessels Passing through Drawbridges, February 1, 1916, to January 31, 1917.

Bridges.	STREAMERS.			SAILED.			TOTAL NUMBER VESSELS.			Total Number of Carroes.	Total Number of Openings.
	By Day.	By Night.	Total.	By Day.	By Night.	Total.	By Day.	By Night.	Total.		
Broadway.....	54	5	59	201		201	5,647	214	5,861	1,182	2,031
Charlestown.....				218		218	4,603	829	5,432	1,312	2,425
Chelsea North.....	876	187	1,063	222		222	19,660	5,381	25,041	5,532	9,934
Chelsea South.....	22	6	28	107		107	11,467	1,000	12,467	3,442	5,587
Chelsea street.....		1	1	4		4	2,134	922	3,056	689	1,656
Congress street.....	183	20	203	342		342	9,048	743	9,791	1,219	5,025
Dorchester avenue.....	56	9	65	207		207	5,703	380	6,083	1,157	3,297
Dover street.....	47	10	57	294		294	5,383	367	5,750	1,148	2,382
Granite avenue.....				8		8	940	.....	940	56	677
L street.....	12	1	13	102		102	4,243	471	4,714	593	3,382
Malden.....	4		4	55		55	2,728	363	3,091	611	1,778
Meridian street.....	423	199	622	215		215	15,611	3,580	19,191	2,453	10,969
Neposet.....				2		2	1,128	10	1,138	43	848
North Beacon street.....							11	.....	11	4	4
Northern avenue	1,015	678	1,693	366		366	14,577	1,994	16,571	2,800	7,373
Summer street.....	183	20	203	342		342	9,048	743	9,791	1,219	5,044
Warren.....	16	4	20	207		207	4,291	803	5,094	1,183	3,247
Western ave. to Watertown.....							14	6	20	5	10
Totals.....	2,891	1,140	4,031	3,062	221	3,303	116,236	17,806	134,042	24,648	65,869

ELEVATIONS AND DATUM PLANES REFERRED TO BOSTON CITY BASE.

Feet.

- * 0.00 Boston city base. This base is used by the towns of Brookline and Watertown and the cities of Chelsea, Everett, Malden, Newton and Waltham.
- 4.98 Cambridge city base.
- +0.64 Somerville city base.
- 0.00 Metropolitan Park Commission base.
- +0.60 Harbor and Land Commission and Directors of the Port of Boston base.
- 0.00 Metropolitan Water Board base.
- 100.00 Metropolitan Sewerage Board base.
- 100.00 Boston Transit Commission base.
- 100.00 Charles River Commission base.
- 15.45 Old bench mark on coping of old dry dock at Charlestown Navy Yard.
- 15.11 New bench mark on coping of old dry dock at Charlestown Navy Yard, northwest end over crowfoot.
- 5.00 Piles to be cut off for building.
- 12.00 Minimum cellar bottom elevation when not waterproofed.
- 9.82 South Boston base. Formerly in use, now abandoned.
- 0.00 Mean low water about 1830.†
- +0.34 Mean low water, 1867.†
- +0.79 Mean low water, 1902.†
- +0.58 Navy Yard base, 1902.†
- 10.63 Mean high water, 1902.†
- 5.71 Mean sea level, 1902.†
- 9.84 Mean rise and fall of tide, 1902.†

* Definition of Boston city base: "Boston city base is a datum plane 15 feet above the average height of the sill of the Charlestown dry dock." (Page 552, report of Committee on Charles River Dam, 1903.)

† John R. Freeman, civil engineer, in report to Committee on Charles River Dam, 1903, pp. 562, 569, 570.

HIGHEST RECORDED TIDES.

- Feet.
- 15.62 April 16, 1851, average of seven observations, North Market street and vicinity, leveled on in 1854 by Charles Harris, Surveying Division n. b. 22, p. 54 (15.10 above mean low water, United States Coast Survey Chart of Boston Harbor, 1857).
- 15.64 December 26, 1909, average of twenty-nine observations, on water front, Nut Island to Deer Island, elevations determined in most cases by John H. Edmonds, before January 1, 1910, from points put in for that purpose, 1902 to 1905.
- 15.50 December 26, 1909, actual elevation at North Ferry, Boston proper, as observed on staff gauge, at high water.
- From comparison of contemporary diary and newspaper accounts the only tide of this class prior to 1851, found by John H. Edmonds, was that of February 24, 1722-23, which was in all probability about 16.00.

The following tidal records may be of interest:

High Tides.

[Plane of Reference, Boston City Base.]

Feet.	Date.	Where Taken.	By Whom.
16.00	Feb. 24, 1722-23.	By comparison	J. H. Edmonds.
15.62	April 16, 1851	Average of 7 observations	Charles Harris.
15.74	April 16, 1851	Navy Yard, staff gauge	Isaac Williams.
14.15	Jan. 23, 1898	Charlestown Bridge and East Boston Ferries.	
14.94	Nov. 27, 1898	Average of 15 observations.	
13.72	Nov. 8, 1900	Malden Bridge	F. P. Spalding.
14.19	Nov. 25, 1901	Average of 10 observations.	
13.60	Dec. 14, 1902	Average of 11 observations.	
14.83	Jan. 25, 1905	Average of 34 observations.	
14.70	Jan. 25, 1905	Inner harbor, 10 observations.	
14.70	Jan. 25, 1905	North Ferry, Boston proper	J. H. Edmonds.
13.50	Nov. 15, 1906	Neponset Bridge	M. F. Toomey.
15.64	Dec. 26, 1909	Average of 29 observations.	
15.50	Dec. 26, 1909	North Ferry, Boston proper (a. m.)	J. H. Edmonds.

High Tides.— Concluded.

FERT.	Date.	Where Taken.	By Whom.
11.90	Dec. 26, 1909....	North Ferry, Boston proper (p. m.).....	J. H. Edmonds.
13.50	Dec. 26, 1913....	North Ferry, Boston proper.....	F. P. Spalding.
13.90	Nov. 20, 1914....	Malden Bridge.....	H. H. McNerlin.
14.30	Jan. 13, 1915....	North Ferry, Boston proper.....	F. P. Spalding.
14.62	Jan. 13, 1915....	Granite Avenue Bridge.....	G. A. Clough.

Low Tides.

5.60	Nov. 27, 1898....	Deer Island, metropolitan sewer station....	Self-recording gauge.
-3.50	Feb. 1, 1900....	Deer Island, metropolitan sewer station....	Self-recording gauge.
-2.94	Feb. 3, 1900....	South Boston station, Edison Electric.....	D. A. Herrington.
-3.00	Feb. 4, 1904....	Deer Island, metropolitan sewer station....	Self-recording gauge.
-3.00	Mar. 23, 1905....	Deer Island, metropolitan sewer station....	Self-recording gauge.

FERRY SERVICE.

A new pump and jet condenser were installed on the "Noddle Island," the work being done partly by day labor and partly by contract.

All of the boats had new planking put on the roadways, this work being done by employees of the Ferry Service.

The woodwork on the East Boston end of the "Noddle Island" and on the East Boston end of the "General Hancock" and the cross frames and the keelsons under the boilers of the "Hugh O'Brien" were found to be in dangerous condition and contracts were made for repairs. The new end on the "General Hancock" was built by the McKie Shipbuilding Company, the twelve new frames with new keelsons under the boilers of the "Hugh O'Brien," as well as the new end on the "Noddle Island," were built by James E. Quirk.

A new ruling of the Steamboat Inspectors required that the portholes and the openings between the deck beams be closed and this work was all done under contract. A large amount of painting has been done, almost entirely by ferry employees, with the result that the buildings and boats present a far better appearance than for years past.

The "Hugh O'Brien," "Noddle Island," "Governor Russell" and "General Hancock" were pulled out either into dry dock or on a marine railway and the bottoms cleaned.

The yellow metal on the "Noddle Island" and "Governor Russell" was patched; that on the "Hugh O'Brien" was in such bad condition that what was left was taken off and the bottom painted, this work on the "O'Brien" being included in the contract of James E. Quirk, previously mentioned. The bottom of the "General Hancock" was also painted. Some of these boats had not been out for several years and the bottoms were in very foul condition. Minor repairs have also been made on the buildings, drops and boats.

The following steam ferryboats are in commission:

NAME.	When Built.	Kind.	Length.	Gross Tonnage.
D. D. Kelly.....	1879	Side wheel	160 ft. 3 in.	550
Hugh O'Brien.....	1883	"	175 " 3 "	645
General Hancock.....	1887	"	160 " 3 "	577
Governor Russell.....	1898	Propeller	164 " 3 "	713
Noddle Island.....	1899	"	164 " 3 "	710
General Sumner.....	1900	"	164 " 3 "	703
John H. Sullivan.....	1912	"	172 " 3 "	826

FINANCIAL STATEMENT FOR THE YEAR ENDING JANUARY 31, 1917.

1. Receipts.

Total cash receipts during the year	\$95,125 14
Cash in hands of tollmen at beginning of year	200 00
Cash in hands of cashier February 1, 1916	282 74
	<hr/>
	\$95,607 88
Cash paid over to City Collector	\$95,407 88
Cash in hands of tollmen January 31, 1917	200 00
	<hr/>
	\$95,607 88

2. Appropriations and Expenditures.

Balance unexpended from previous years (special appropriations)	\$2,015 60
Received by transfer from Bridge Service	112 17
Received from annual appropriation	298,115 75
Received by transfer from Bridge Service	5,801 43
	<hr/>
Total appropriations	\$306,044 95
Total expenditures	304,269 95
	<hr/>
Balance unexpended (special appropriation)	\$1,775 00

3. Result of Operations for the Year.

Receipts for the year (net income)	\$95,125 14
Ordinary expenses	\$303,917 18
Interest paid on ferry debt	14,987 91
Depreciation of ferryboats	13,340 13
	<hr/>
	\$332,245 22
Less increase in stock of supplies	\$2,243 63
	<hr/>
Carried forward	\$2,243 63 \$332,245 22 \$95,125 14

<i>Brought forward</i> .	\$2,243 63	\$332,245 22	\$95,125 14
Less increase in stock of fuel	3,235 31		
Less increase of stock of machinery and tools	65 00		
		5,543 94	
Net outgo for the year			326,701 28
Net loss for the year			<u>\$231,576 14</u>

4. Balance Sheet.
End of Fiscal Year January 31, 1917.

Assets.		LIABILITIES.	
AVAILABLE ASSETS:		CURRENT LIABILITIES:	
Cash in hands of tollmen at close of year.....	\$200 00	None.	
Inventory of supplies, viz.:			
Fuel.....	\$7,703 04		
Supplies for maintenance.....	4,580 00		
Rents receivable.....	12,283 04		
	33 40		
Total available assets.....	\$12,516 44		
CONTINGENT ASSETS:		CONTINGENT LIABILITIES:	\$1,775 00
City Treasury.....	1,775 00	Appropriations account.....	
FIXED ASSETS:		FIXED LIABILITIES:	
Real estate, land and buildings ¹	* 610,100 00	Capital of the city invested in the ferries, viz.:	
Ferryboats ²	208,995 39	Total expenditures of all kinds for fifty-	
Machinery, tools, etc.....	3,080 00	nine years, including interest on ferry	
		debt.....	\$13,254,569 94
Total tangible assets.....	\$836,466 83	Less total receipts.....	7,298,995 25
Avenues, etc., East Boston ⁴	315,815 68		
Deficiency or loss by operation and maintenance			
of the ferries for fifty-nine years to date.....	4,805,067 18		5,955,574 69
	\$5,957,349 69		\$5,957,349 69

¹ Original purchase of ferries..... \$276,375 00
New buildings, drops, slips, etc., cost to date... 607,523 64
Land, Lincoln's Wharf, cost, 1887..... 5,562 52
Land, Battery Wharf, cost, 1893..... 10,000 00
\$899,461 16

* Cost (net) previous to 1870, per ferry books, viz.:
Expenditures for avenues..... \$250,000 00
Expenditures for improvements..... 65,815 68
\$315,815 68

² Assessors' figures.
³ Total cost to date, per ferry books..... \$743,070 58
Less boats sold, depreciated or destroyed..... 534,075 19
\$208,995 39

* These expenditures were practically subsidies to the East Boston Ferry Company by the city before the ferries were purchased by the latter and should be added to the deficiency or loss.

Comparison of Receipts, Appropriations and Expenditures for Five Years.

	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.
RECEIPTS.					
From foot passengers (tollmen).....	\$57,598 10	\$58,163 78	\$57,762 50	\$54,285 67	\$44,048 14
“ foot passes (office sales).....	620 70	677 80	589 60	557 40	566 70
“ extra passengers on teams (gatemen).....	1,283 85	1,620 47	1,886 29	1,935 17	1,721 33
“ team tickets (office sales).....	1,308 50	1,314 50	654 00	1,694 00	2,661 50
“ strip team tickets (tollmen).....	24,753 50	23,567 00	23,711 50	24,062 50	23,142 00
“ cash fares for teams (gatemen).....	18,960 14	18,843 01	20,016 24	21,681 01	21,202 55
“ free ferries July 4.....	1 00	1 00	1 00	1 00	1 00
Total from rates.....	\$104,525 79	\$104,187 56	\$104,621 13	\$104,216 75	\$93,343 22
From rents.....	492 00	514 00	497 00	560 10	564 00
“ old material sold.....	149 50	74 00	141 26	258 16	594 78
“ other sources.....	2,391 74	1,551 52	656 05	922 75	623 14
Total ordinary receipts.....	\$107,559 03	\$106,327 08	\$105,915 44	\$105,957 76	\$95,125 14
EXPENDITURES (ORDINARY).					
Office: Engineer's salary	\$2,500 00	\$2,500 00	\$1,310 77	.....	\$1,250 00
Division engineer's salary (part) *	3,300 00	3,366 66	3,753 75	\$3,758 41	4,341 44
General foreman and cashier †	.....	117 50	900 00	900 00	765 00
Clerks †	.....	5,205 33	6,132 74	4,887 51	4,739 45
Retired veterans' pensions.....	4,912 37	572 45	952 15	1,639 14	2,246 15
Retired employees' pensions.....	.....	.....	1,388 18	197 67	.....
Engineers' roll (part) *	.....	.....	.....	.....	83 00
Medical inspector (part).....	.....	.....	.....	.....	117 59
Stationery.....	218 72	164 23	171 40	117 70	.....
Printing.....	1,201 81	1,785 94	2,233 37	1,124 86	1,258 39
Telephones.....	248 06	245 44	256 98	267 34	299 54
Advertising.....	32 40	56 80	16 20	10 80	34 60
Car fares.....	74 85	81 00	84 58	63 00	75 00
Postage.....	2 00	6 00	2 00	6 00	6 00
Premiums, surety companies.....	108 00	82 11	83 75	85 75	90 00
Total, office expenses.....	\$12,598 21	\$14,183 40	\$17,285 87	\$13,058 18	\$15,300 16

Comparative Balance Sheets at the Close of Each Year for Five Years.

	January 31, 1913.	January 31, 1914.	January 31, 1915.	January 31, 1916.	January 31, 1917.
<i>Assets.</i>					
Cash, balance on hand.....		\$390 06	\$395 59	\$282 74	.....
Cash, tollmen's capital.....	\$200 00	200 00	200 00	200 00	\$200 00
Rents receivable.....	22 00	22 00	39 00	42 90	33 40
Fuel and supplies in stock.....	10,877 63	9,265 62	14,375 75	6,804 10	12,283 04
City Treasurer (balance of appropriation).....	8,048 11	515 60	15 60	2,015 60	1,775 00
Ferryboats (less depreciation).....	267,685 78	251,624 63	236,527 15	222,335 52	208,995 39
Machinery and tools.....	3,378 55	3,040 69	3,350 00	3,015 00	3,080 00
Real estate, land and buildings (assessors' valuation).....	641,800 00	610,200 00	610,200 00	610,100 00	610,100 00
Total tangible assets.....	\$932,012 07	\$875,258 60	\$865,103 09	\$844,795 86	\$836,466 83
Cost of avenues, etc., East Boston (previous to 1870) ¹	315,815 68	315,815 68	315,815 68	315,815 68	315,815 68
Deficiency of assets (loss).....	3,905,960 81	4,150,659 65	4,364,388 68	4,573,128 77	4,805,067 18
Totals.....	<u>\$5,153,788 56</u>	<u>\$5,341,733 93</u>	<u>\$5,545,307 45</u>	<u>\$5,733,740 31</u>	<u>\$5,957,349 69</u>
<i>Liabilities.</i>					
Capital invested by the City of Boston to date.....	\$5,145,740 45	\$5,341,218 33	\$5,545,291 85	\$5,731,724 71	\$5,955,574 69
Appropriations account (credit balances).....	8,048 11	515 60	15 60	2,015 60	1,775 00
Total liabilities.....	<u>\$5,153,788 56</u>	<u>\$5,341,733 93</u>	<u>\$5,545,307 45</u>	<u>\$5,733,740 31</u>	<u>\$5,957,349 69</u>

Details of Capital Invested by the City of Boston.

Total expenditures to date, per ferry books.....	\$11,674,764 87	\$11,977,239 77	\$12,287,566 20	\$12,580,429 67	\$12,900,154 62
Interest on debt for the year (per City Auditor).....	17,215 00	16,155 00	15,815 00	15,455 00	14,987 91
Interest previous years, etc. (net debits, per auditor).....	279,148 85	279,148 85	279,148 85	279,148 85	279,148 85
Total expenditures ²	<u>\$11,971,128 72</u>	<u>\$12,272,543 62</u>	<u>\$12,582,530 05</u>	<u>\$12,875,033 52</u>	<u>\$13,194,291 38</u>
Deduct total receipts paid to collector.....	6,825,388 27	6,931,325 29	7,037,238 20	7,143,308 81	7,238,716 69
Excess of expenditures, capital.....	<u>\$5,145,740 45</u>	<u>\$5,341,218 33</u>	<u>\$5,545,291 85</u>	<u>\$5,731,724 71</u>	<u>\$5,955,574 69</u>

¹ See footnote 4 under Table 4.² Auditor's figures for total expenditures and receipts are \$60,278.56 more than the above, the difference (capital invested) being the same.

Total Expenditures upon Ferries Since 1858-59.

Expenditures for avenues, paving, interest, etc., previous to purchase of the ferries by the city	\$444,101 30
Purchase of ferries, April, 1870	276,375 00
Expenditures for ferryboats since April, 1870	743,070 58
Expenditures for new buildings, piers, drops, etc.	607,523 64
Expenditures for tools and fixtures	14,752 46
Expenditures for land from Lincoln's Wharf in 1887	5,562 52
Expenditures for land from Battery Wharf in 1893	10,000 00
Total expenditures on capital account	\$2,101,385 50
Expenditures for repairs of all kinds	1,172,778 26
Expenditures for fuel	1,712,918 40
Expenditures for salaries and wages	6,296,070 94
Expenditures for all other purposes	1,971,416 84
	<hr/>
	\$13,254,569 94

Total Receipts from Ferries Since 1858-59.

Receipts from rents, etc., previous to purchase of ferries	\$29,588 56
Receipts from ferry tolls since purchase of ferries	6,998,689 47
Receipts from rents since purchase of ferries	66,291 89
Receipts from sales of ferryboats	149,067 44
Receipts from all other sources, per ferry books,	24,823 04
Receipts from all other sources, additional, per auditor	30,734 85
Total receipts from all sources	\$7,299,195 25
Less amount with tollmen as capital	200 00
	<hr/>
Total receipts, per auditor's figures	\$7,298,995 25

**REGULAR ANNUAL (ORDINARY) AND SPECIAL APPROPRIATIONS
(EXTRAORDINARY) OF THE FERRY SERVICE FOR THE YEAR
ENDING JANUARY 31, 1917.**

Appropriation (regular) for the year ending January 31, 1917	\$298,115 75
Received by transfer from Bridge Service	5,801 43
	<hr/>
	\$303,917 18
	<hr/>
Amount of expenditures (regular) for the year	\$303,917 18

SPECIAL APPROPRIATIONS.

Appropriation authorized and issued May 27, 1902, for ferry improvements	\$100,000 00
Received by transfer December 29, 1916, from special loan to Bridge Service	112 17
	<u>\$100,112 17</u>
Amount expended from May 27, 1902, to January 31, 1916	\$99,984 40
Amount expended from February 1, 1916, to January 31, 1917	127 77
	<u>\$100,112 17</u>
Appropriation authorized and issued July 19, 1915, for auxiliary lighting plant	\$2,000 00
Amount expended from July 19, 1915, to January 31, 1917	225 00
	<u>\$1,775 00</u>

STATEMENT SHOWING RECEIPTS AT EACH FERRY.

North Ferry.

FROM TOLLMEN.	Foot Passengers.	From Tickets.	Totals.
Boston side	\$12,742 47	\$5,254 00	\$17,996 47
East Boston side	12,188 26	7,423 00	19,611 26
	<u>\$24,930 73</u>	<u>\$12,677 00</u>	<u>\$37,607 73</u>
From tollmen			\$37,607 73
From gatemen:			
For 91,420 foot passengers at 1 cent		\$914 20	
For cash fares for teams		10,274 56	
		<u>11,188 76</u>	
Total at North Ferry			<u>\$48,796 49</u>

South Ferry.

FROM TOLLMEN.	Foot Passengers.	From Tickets.	Totals.
Boston side.....	\$9,987 42	\$5,916 00	\$15,903 42
East Boston side.....	9,129 99	4,549 00	13,678 99
	<u>\$19,117 41</u>	<u>\$10,465 00</u>	<u>\$29,582 41</u>

From tollmen \$29,582 41

From gatemen:

For 80,713 foot passengers at 1
cent

\$807 13

For cash fares for teams 10,927 99

11,735 12

Total at South Ferry \$41,317 53

North and South Ferries as above \$90,114 02

Tickets paid for at ferry office 3,228 20

Received in lieu of free ferries July 4, 1916 1 00

Total from rates \$93,343 22

Rents for the year 564 00

Sale of old material 594 78

Commissions on public telephone receipts 53 64

Headhouse privileges 500 00

Care of public telephone booths 44 00

Reimbursement for damages 25 50

Total receipts for the year \$95,125 14

STATEMENT OF TRAVEL ON THE FERRIES FROM FEBRUARY 1,
1916, TO JANUARY 31, 1917, INCLUSIVE.

	North Ferry	South Ferry
Foot passengers at 1 cent each	2,584,493	1,992,454
Foot passengers by tickets	36,776	17,521
Foot passengers free	1,763	
Total foot	<u>2,623,032</u>	<u>2,009,975</u>

	North Ferry.	South Ferry.
One-horse teams and pleasure car- riages	286,299	252,811
One-seat automobiles	19,812	23,897
Two-horse teams	97,205	86,438
Motor trucks	57,678	50,474
Three-horse teams	2,544	2,179
Four-horse teams	2,758	3,882
Two-horse pleasure carriages and hacks	7,128	1,368
Two-seat automobiles	46,628	39,209
Handcarts, etc.	1,411	2,126
Dragwheels	1	
Free teams	7,808	4,259
	<u>529,272</u>	<u>466,643</u>
Total paying foot		4,631,244
Total free foot passengers		1,763
Total foot passengers carried		<u>4,633,007</u>
Total paying teams		983,848
Total free teams		12,067
Total teams carried		<u>995,915</u>

**TOTAL TRAVEL ON BOTH FERRIES FROM FEBRUARY 1, 1911, TO
JANUARY 31, 1917.**

	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.
One-horse teams.....	635,792	658,255	651,701	623,508	644,311	582,819
Two-horse teams.....	236,600	249,052	239,121	248,464	276,850	291,795
Three-horse teams.....	10,357	9,697	7,732	6,125	5,410	4,723
Four-horse teams.....	7,218	5,838	4,578	4,739	4,507	6,640
Two-horse carriages, hacks.....	51,637	67,094	63,860	83,253	84,389	94,333
Two-cent tolls.....	4,329	5,519	2,662	2,231	3,195	3,537
Dragwheels, etc.....	11	6	1	4	4	1
Paid teams at both ferries.....	945,944	995,461	969,655	968,324	1,018,666	983,848
Free teams at both ferries.....	8,134	14,541	12,954	11,028	10,844	12,067
Total teams at both ferries...	954,078	1,010,002	982,609	979,352	1,029,510	995,915
Foot passengers, paid.....	6,007,367	5,950,153	6,044,507	6,024,082	5,676,118	4,631,244
Foot passengers, free.....	3,554	2,551	2,509	885	2,053	1,763
Total foot passengers.....	6,010,921	5,952,704	6,047,016	6,024,967	5,678,171	4,633,007

Note: The above team travel includes automobiles.

APPENDIX C.

REPORT OF THE DIVISION ENGINEER OF THE
HIGHWAY DIVISION.

Boston, February 1, 1917.

MR. E. F. MURPHY,

Commissioner of Public Works:

DEAR SIR,—I submit herewith a statement of the expenditures, operations and activities of the Highway Division for the year ending January 31, 1917.

The expenditures (maintenance) of the Highway Division for the year were as follows:

Lighting Service	\$772,769 97
Paving Service	983,910 24
Sanitary Service	969,438 86
Street Cleaning and Oiling Service	672,160 84
Sewer Service	322,199 03
Water Service	917,823 64
Total	<u>\$4,638,302 58</u>

NOTE.— For further detail of expenses see pages 12 to 15.

A few of the most important achievements and plans for work of the different services of this division are described below:

LIGHTING SERVICE.

Numerous requests for lamps of the boulevard type have been received from merchants in the retail sections of the city.

While the cost of installing and maintaining these lights is more expensive than the ordinary tungsten lamps, it is felt that the increased cost is more than offset by the increased business in the sections supplied with this type of lamp.

The arbitration of the electric light contract is still under consideration by the Corporation Counsel.

PAVING SERVICE.

The adoption of different types of paving for streets has resulted in contracts being made in groups with a number of streets included in one contract for a particular type. The contracts made include, approximately, 70,000 square yards of granite blocks on a concrete base, with grout joints; 110,000 square yards of asphalt on concrete base; 10,600 square yards wood block on concrete base; 12,500 square yards asphalt on existing macadam base; 31,800 square yards bituminous macadam; 4,300 square yards brick block on concrete base and 35,000 square yards asphalt patching.

The Board of Street Commissioners laid out sixty-nine streets during the year, the construction of which will not be completed until next year. The majority of these streets being in the suburban residential section will be constructed with bituminous pavement or Portland cement concrete.

Four radial highways, viz., Norfolk avenue, Belgrade avenue, Chelsea street and Hyde Park avenue, which have been ordered widened by the Board of Street Commissioners, will not be completed before 1918.

The requests for artificial stone sidewalks have become almost insistent and there are on file in this office at the present time applications for this kind of walk aggregating \$275,000. It is expected that at least \$100,000 will be appropriated early in 1917 for this work.

SANITARY SERVICE.

A substantial saving in the cost of hired teams has been made by the opening of the Ward street station. To put the station in perfect condition for the handling and relaying of refuse will require changes in the bins as now constructed.

STREET CLEANING SERVICE.

In the report for last year reference was made to the need of up-to-date motor equipment for sweeping, pick-up and street flushing. No purchases have been made of new equipment because nothing has been seen in operation working so successfully as to warrant the

expenditure of a sum of money for equipment, the use of which for the time being, at least, would be purely experimental.

Considerable flushing has been done during the year with both horse-drawn and motor-pressure carts hired by the day.

During the year about 950,000 gallons of oil were used for dust-laying purposes.

SEWER SERVICE.

The D street overflow and the B and Seventh streets overflow were extended into Fort Point channel. Old wooden sewers in Albany street, from Kneeland street to Northampton street, Canal street, Sudbury street and other streets were replaced with new pipe sewers.

Extensive improvements have been made at the pumping station, Calf Pasture. A thorough overhauling of all the auxiliaries in the steam plant has been made and the deposit sewers have been cleaned out.

Seventy-three contracts have been made for pipe sewers and drains in 112 streets in all sections of the city to replace old sewers and in new streets which have been opened to travel.

WATER SERVICE.

This service had an unusual busy year laying mains, installing hydrants, services and meters.

There are now 864 miles of water mains and 9,528 hydrants in service.

The replacing of small size mains with the larger sizes, 8 inches and 12 inches, still continues and furnishes an improved service over the smaller sizes of pipe formerly in use. On account of the activities of the Fire Department officials much work has been done in connection with the installation of fire sprinkler pipes.

A condensed statement of the appropriations, revenues and expenditures of the various services of this division will be found on pages 12 to 15.

In the following pages will be found data showing work done and the cost of the same.

Respectfully submitted,

JAMES H. SULLIVAN,
Division Engineer.

HIGHWAY DIVISION — LIGHTING SERVICE.

FINANCIAL STATEMENT.

*Expenditures, February 1, 1916, to January 31, 1917.**Electric Lighting:**Arc.*

Edison Electric Illuminating Company	\$421,527 33	
Charlestown Gas and Electric Company	25,312 05	
	<hr/>	\$446,839 38

Incandescent.

Edison Electric Illuminating Company	\$81,887 35	
Charlestown Gas and Electric Company	21 12	
	<hr/>	81,908 47

Gas Lighting:

Boston Consolidated Gas Company	\$196,865 42	
Charlestown Gas and Electric Company	11,110 92	
	<hr/>	207,976 34

Salaries and Wages:

Division Engineer (part of)	\$832 00	
Supervisor	110 00	
Lamplighter and repairer	941 50	
Clerk	1,495 52	
Stenographer	996 84	
Pensions	360 00	
	<hr/>	4,735 86

Automobile Expenses:

Gasolene, oil, etc.	\$110 68	
Tubes and shoes, new and repairs,	161 47	
Supplies	34 18	
Repairs	345 42	
Wages of chauffeur	1,092 00	
	<hr/>	1,743 75

Construction:

Changes on account of installation of lamps	\$1,502 69	
Shifting poles, etc.	478 62	

<i>Carried forward</i>	<hr/>	<hr/>	\$1,981 31	\$743,203 80
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<i>Brought forward</i>	\$1,981 31	\$743,203 80
Broken lamps	75	
Installing 12 boulevard lamps	440 00	
	<hr/>	2,422 06
<i>Office Expense:</i>		
Printing	\$48 44	
Postage	20 00	
Stationery and periodicals	25 50	
	<hr/>	93 94
<i>Miscellaneous:</i>		
Traveling expenses	\$15 75	
Telephone rentals, etc.	58	
Atlas	36 50	
Stenographer's reports of public hearings	2,157 27	
Services of experts on investigation of contracts	24,449 07	
Services of employees of Paving Service on locations of posts	390 00	
Teaming lamp-post	1 00	
	<hr/>	27,050 17
Total		<hr/> <u>\$772,769 97</u>

Revenue Credited to General Revenue.

Lighting Boston and Cambridge Bridges . . . \$2,531 35

The following is a statement of the work done during the year under the supervision of the Division Engineer, Highway Division:

Arc lamps have been provided for skating and tobogganing during the season at Franklin Field, Franklin Park and Wood Island Park, the same as in years past.

Thirty-two magnetite arc lamps of the Boulevard type, "Whiteway," have been installed on Canal street, city proper and City square, Charlestown.

The usual amount of regulation and relocation of lamps and services, made necessary by street construction, the building of sewers and other works, has been conducted throughout the year.

Petitions and requests for new lamps received from citizens and from officials, also complaints in relation to the Lighting Service, have been investigated and attended to. All streets in the underground district prescribed for the year 1916 have been inspected and necessary changes and additions have been made.

The number of miles of streets and ways lighted by this service is as follows:

	Miles.
Public streets and alleys	596.19
Public footways	1.28
Park roads, footways and private streets and alleys, approximately	300.00
	<hr/>
	897.47
	<hr/>

During the year the following defects were reported by the police: Arc lamps 5,856; incandescent, 918, and gas lamps, 840.

LAMPS INSTALLED.	
Magnetite arc lamps	53
Tungsten lamps	95
Single mantle gas lamps	53
Fire alarm, gas	1
	<hr/>
	202
LAMPS DISCONTINUED.	
Magnetite arc lamps	14
Flame arc lamps	0
Tungsten lamps	18
Single-mantle gas lamps	46
Double-mantle gas lamp	0
Three-mantle gas lamps	1
	<hr/>
	79
	<hr/>
Net increases	123
	<hr/>

The following table shows the number of lamps of the various types in use on January 1, 1917, as compared with the number in use on January 1, 1916:

	January, 1917.	January, 1916.	Increase or Decrease.
Single mantle gas.....	9,656	9,652	+4
Double mantle.....	70	70	.....
Fire Alarm gas.....	146	146	.....
Magnetite arc.....	5,099	5,059	+40
Flame arc.....	23	23	.....
Tungsten incandescent.....	4,457	4,378	+79
	19,451	19,328	123

STREET LAMP OUTAGES.

Rebates for lamps not lighted on schedule time or out before the proper time have been received on the various monthly bills, as follows:

DATE.	Incandescent.	Gas.	Arc.
February, 1916.....	\$5 32	\$6 33	\$325 95
March.....	5 70	7 21	185 23
April.....	3 42	18 61	135 29
May.....	2 86	35 63	111 68
June.....	2 76	2 74	83 74
July.....	3 52	1 77	67 15
August.....	2 36	95	35 96
September.....	3 16	3 26	167 77
October.....	3 87	1 88	59 31
November.....	3 16	2 77	70 18
December.....	5 72	7 96	60 49
January, 1917.....	5 54	5 58	94 92
	\$47 39	\$93 69	\$1,397 67

GAS LIGHTING.

There are in use 9,659 single mantle gas lamps, 70 double mantle lamps and 146 open flame fire alarm signal lamps.

The city furnishes the lamp-posts. The gas companies set the lamp-posts and provide service pipes laid from the gas mains to the top of the posts; maintain all such pipes and posts in good condition and repair; furnish gas, lanterns, burners and all other necessary equipment, including labor for lighting and care.

The Lighting Service provides for the gas, lighting and care of the fire alarm signal lamps, and the Fire Department for the lanterns, posts, setting and repairing of same.

Gas Lamps.

LIGHTING COMPANY.	Gas District.	Number of Lamps.	Type of Lamps.	Rated Candle Power.	Gas Consumed per Lamp per Hour.	Hours of Burning per Annum.	Cost of Gas per Lamp per Annum.	Cost per Lamp for Lighting, Care and Repair per Annum.	Total Cost per Lamp.
Boston Consolidated Gas Company.	City proper, East and South Boston, Dorchester, Roxbury, West Roxbury, Brighton.	9,147	Single mantle.	60	3 feet.	4,000	\$9 00	\$12 00	\$21 00
		70	Double mantle.	100	6 feet.	4,000	18 00	15 00	33 00
		127	Open flame.	.....	4 feet.	4,000	.....	.....	21 00
Charlestown Gas and Electric Company.	Charlestown.....	509	Single mantle.	60	3 feet.	4,000	9 00	.....	21 00
		19	Open flame.	.....	4 feet.	4,000	.....	.....	21 00

ELECTRIC LIGHTING.

There are in use 5,099 magnetite arc lamps, 23 flame arc lamps, 3,177 40-candle power, 1,264 60-candle power, 10 80-candle power, 4 100-candle power, and 6 320-candle power tungsten lamps.

The electric companies provide and set the lamp-posts, except the lamp-posts for incandescent lamps supplied from underground circuits, furnish lamps, overhead wires, underground conduits, cables and connections and all other necessary equipment and maintain them in good condition and repair.

The lighting rates for electric lamps are in accordance with the following table:

DESCRIPTION OF LAMP.	Fixed Costs per Lamp per Year.	Running Costs per Lamp Hour.
40 candle power incandescent lamp.....	\$10 80	$\frac{3}{8}$ cent
60 candle power incandescent lamp.....	12 00	$\frac{1}{2}$ cent
80 candle power incandescent lamp.....	14 90	$\frac{1}{2}$ cent
100 candle power incandescent lamp.....	18 00	$\frac{1}{2}$ cent
320 candle power incandescent lamp.....	36 00	1 $\frac{1}{2}$ cents
800 candle power magnetite 500-watt D. C.....	36 00	1 $\frac{1}{2}$ cents
1,600 candle power Thoran 500-watt D. C.....	42 00	3 $\frac{1}{2}$ cents

A discount of 10 per cent is made on the above rates for lamps in all sections of the city. A deduction at the rate of 1 cent per hour for lamps of 100 candle power or less and 5 cents per hour for all other lamps is made for outages.

Arc Lamps.

COMPANY.	Number of Lamps.	Connected.	Type of Lamp.	Type of Circuit.	At Terminal.	Lighting Hours.	Cost per Lamp per Annum.
Edison Electric Illuminating Company.....	1,905	Overhead.	Magnetite.	Series 6.6 amp. D. C.	528	3,828	\$87 52
	2,873	Underground.	Magnetite.	Series 6.6 amp. D. C.	528	3,828	87 52
	29	Underground.	Magnetite.	Multiple D. C.	.....	3,828	87 52
	23	Underground.	Flame.	Series 6.6 amp. D. C.	528	3,828	148 05
Charlestown Gas and Electric Company.....	216	Overhead.	Magnetite.	Series 6.6 amp. D. C.	528	3,828	87 52
	76	Underground.	Magnetite.	Series 6.6 amp. D. C.	528	3,828	87 52
	5,122						

NOTE.— In the above the candle power figures are the official designations. The wattage figures are here eliminated.

Incandescent Lamps.

COMPANY.	Number of Lamps.	Type of Lamp.	Type of Circuit.	Candle Power.	Lighting Hours.	Cost of Lamp per Annum.
Edison Electric Illuminating Company.....	1,741	Tungsten.	Series 6.6 amp. D. C.	40	3,828	\$18 33
	874	Tungsten.	Series 6.6 amp. D. C.	60	3,828	21 14
	1	Tungsten.	Series 6.6 amp. D. C.	80	3,828	26 38
	3	Tungsten.	Series 6.6 amp. D. C.	100	3,828	33 43
	1,436	Tungsten.	Multiple D. C.	40	3,828	18 33
	390	Tungsten.	Multiple D. C.	60	3,828	21 14
	9	Tungsten.	Multiple D. C.	80	3,828	26 38
	6	Tungsten.	Multiple D. C.	320	3,828	84 08
	1	Tungsten.	Multiple D. C.	100	3,828	33 43
	1	Tungsten.	Series 6.6 amp. D. C.	60	3,828	21 14
Charlestown Gas and Electric Company.....						

NOTE.— In the above the candle power figures are the official designations. The wattage figures are here eliminated.

HIGHWAY DIVISION. (PAVING SERVICE.)

The following is a description of the most important work done during the year:

GRANITE BLOCK PAVEMENT.

Alexander street, from Bird street to 527 feet northerly, is about 572 feet in length. (See "Assessment Streets.")

Albany street, from Dover street to Northampton street, is about 4,860 feet in length. A contract for paving this street with special granite block, on a six (6) inch Portland cement concrete base, with grout joints, was awarded to Bernard E. Grant August 26, 1916. It is an eighty (80) foot street with a roadway 54 to 60 feet in width. The contractor reset the edgestone and paved the roadway. The sidewalk, which varies from 10 to 13 feet in width, was paved with brick on the easterly side of the street and on the westerly side artificial stone is to be laid. The straight edgestone, flagging and corners were furnished by the city and hauled by the contractor. The circular edgestone and sidewalk brick was furnished by the city on the line of the work. All other materials, including special paving blocks, were furnished by the contractor. About half the work under the contract has been completed and work will be resumed in the spring. The former surface of the street was granite block on a gravel base.

Amory street, from Centre street to Bragdon street, is about 1,408 feet in length. (See "Assessment Streets.")

Batterymarch street, from Franklin street to Broad street, is about 287 feet in length. A contract for paving this street with special granite block, on a six (6) inch Portland cement concrete base, with grout joints, was awarded to Bernard E. Grant August 26, 1916. This street varies in width from 40 to 66 feet, with sidewalks varying from 6 to 8 feet in width. The contractor did the excavating, reset the edgestone, laid the flagging crosswalks, paved the roadway and laid brick sidewalks. The straight edgestone, flagging and corners were furnished by the city and hauled by the contractor. The sidewalk bricks were furnished by the city on the line of the work. All other materials, including the special paving blocks, were furnished by the contractor. The former surface of the street was granite block, gravel base and joints.

Canal street, from Haymarket square to Causeway street, is about 1,125 feet length in length. A contract for paving this street with special granite block, on a six (6) inch Portland cement concrete base, with grout joints, was awarded to Bernard E. Grant August 26, 1916. It is a 74-foot street with a 50-foot roadway and sidewalks varying from 10 to 15 feet in

width. This street was started very late in the fall and only a part of the excavating and a small amount of paving was done. Work will be resumed in the spring. The former surface of this street was granite block, concrete base and pitch joints.

Columbia road, from Edward Everett square to Dudley street, is about 1,460 feet in length. A contract for paving this street with special granite block, on a four (4) inch Portland cement base with grout joints, was awarded to Bernard E. Grant August 26, 1916. The width of this street varies from 36 to 44 feet. The edgestone was reset, flagging crosswalks were relaid, brick sidewalks were relaid and the roadway paved with granite paving blocks. The former surface of this street was telford macadam.

Dorchester avenue, from Savin Hill avenue to Freeport street, is about 1,940 feet in length. A contract for paving this street with granite blocks, on a six (6) inch Portland cement concrete base, was awarded to Bernard E. Grant August 26, 1916. It is a 60-foot street with 10-foot sidewalks. The work done this year consisted of paving the area between the tracks. The present surface of this street is granite block on gravel base. Work will be resumed in the spring.

School street, from Washington street to Tremont street, is about 570 feet in length. A contract for paving this street with special granite block, on a six (6) inch Portland cement concrete base, grout joints, was awarded to Bernard E. Grant August 26, 1916. The width of this street varies from 35 to 43 feet. The contractor reset the edgestone, laid the flagging crosswalks and paved the street. The former surface of this street was granite block on concrete base.

Washington street, from Morton street to Asticou road. (See "Assessment Streets.")

Albany street, from Kneeland street to the railroad. (Not started.)

Beach street, from Harrison avenue to Atlantic avenue. (Not started.)

Clinton street, from Merchants row to Commercial street. (Not started.)

Cross street, from Commercial street to Haymarket square. (Not started.)

Fulton street, from Blackstone street to Richmond street. (Not started.)

Harrison avenue, from Kneeland street to Dover street. (Not started.)

Haymarket square. (Not started.)

Lincoln street, from Essex street to Beach street. (Not started.)

McKinley square. (Not started.)

Mercantile street, from South Market street to Richmond street. (Not started.)

Washington street, from Haymarket square to Elm street. (Not started.)

HASSAM BLOCK PAVEMENT.

Condor street, from Glendon street to East Eagle street, is about 813 feet in length. (See "Assessment Streets.")

Public alley No. 903, from Haviland street to Public alley 904, is about 426 feet in length. (See "Assessment Streets.")

Public alley No. 904, from Bickerstaff street to Public alley 903, is about 99 feet in length. (See "Assessment Streets.")

Sturtevant street, from Park street to across Gibson street, is about 567 feet in length. (See "Assessment Streets.")

ASPHALT PAVEMENT.

Appleton street, from Berkeley street to Columbus avenue, is about 1,400 feet in length. A contract for constructing this street was awarded to Warren Brothers Company September 9, 1916. Work was begun September 20, 1916, and completed November 16, 1916. It is a 55-foot street with a 35-foot roadway paved with Acme asphalt and Bessemer brick gutters. The asphalt was laid on the old macadam. The brick gutters, which are 30 inches wide, were laid on a 6-inch Portland cement concrete base. The bricks were furnished by the contractor. The granite block paving at the intersection of Dartmouth street was repaved. The sidewalks, which are 10 feet in width, were laid with brick. The city furnished the brick on the line of the work. The brick block gutters and asphalt pavement were laid under a five-year maintenance guaranty. The former surface of this street was macadam.

Ardent street, from Belgrade avenue to Colberg avenue, is about 301 feet in length. (See "Assessment Streets.")

Bardwell street, from South street to Ballard street, is about 613 feet in length. (See "Assessment Streets.")

Brunswick street, from Blue Hill avenue to Normandy street, is about 639 feet in length. (See "Assessment Streets.")

Cedric street, from Magazine street to Langdon street, is about 616 feet in length. (See "Assessment Streets.")

Centervale park, from Upland avenue to Bournside street, is about 517 feet in length. (See "Assessment Streets.")

Chandler street, from Berkeley street to Columbus avenue, is about 1,105 feet in length. A contract for constructing the surface of this street was awarded to Warren Brothers Company September 9, 1916. Work was begun September 20, 1916, and completed November 1, 1916. It is a 55-foot street with a 35-foot roadway paved with Acme asphalt on macadam base and Bessemer brick gutters on a 6-inch concrete base. The edgestone was reset, flagging crosswalks relaid and the sidewalks 10 feet in width were paved with brick. The circular edgestone and sidewalk brick were furnished by the city on the line of the work. All other materials were furnished by the city. The

Bessemer brick gutters and asphalt pavement were laid under a five-year maintenance guaranty. The former surface of the street was macadam.

Dearborn street, from Albany street to Dudley street, is about 495 feet in length. A contract for constructing the surface of this street was awarded to Warren Brothers Company September 9, 1916. Work was begun November 21, 1916, and suspended December 22, 1916. It is a 46-foot street, with a 27-foot roadway paved with Acme asphalt on a 6-inch Portland cement concrete base. The roadway was partly completed. The contractor reset the edgestone and flagging crosswalks. The contractor furnished all material necessary to do the work. The former surface of this street was granite block. This work will be resumed in the spring.

Dunlap street, from Washington street to Whitfield street, is about 804 feet in length. (See "Assessment Streets.")

Dunster road, from Centre street to Pond street, is about 1,770 feet in length. (See "Assessment Streets.")

Epping street, from Washington street to Norfolk street, is about 241 feet in length. (See "Assessment Streets.")

Eric avenue, from Savin Hill avenue to 344 feet northerly, is about 344 feet in length. (See "Assessment Streets.")

Everton street, from Geneva avenue to Olney street, is about 690 feet in length. (See "Assessment Streets.")

Fernboro street, from Lawrence avenue to Intervale street, is about 500 feet in length. (See "Assessment Streets.")

Gaffney street, from Commonwealth avenue to Boston & Albany Railroad, is about 822 feet in length. (See "Assessment Streets.")

Glendower road, from Kittredge street to Poplar street, is about 1,925 feet in length. (See "Assessment Streets.")

Harwood street, from Willowwood street to Lucerne street, is about 725 feet in length. (See "Assessment Streets.")

Hillcrest street, from Elgin street to Temple street, is about 525 feet in length. (See "Assessment Streets.")

Homestead street, from Humboldt avenue to Elm Hill avenue, is about 1,125 feet in length. (See "Assessment Streets.")

Hubert street, from Shawmut avenue to Westminster street, is about 450 feet in length. (See "Assessment Streets.")

Jones avenue, from Mascot street to Ballou avenue, is about 993 feet in length. (See "Assessment Streets.")

Lithgow street, from Talbot avenue to Wainwright street, is about 683 feet in length. (See "Assessment Streets.")

Normandy street, from northerly side of Intervale street to Devon street, is about 490 feet in length. (See "Assessment Streets.")

Orchardfield street, from Dorchester avenue to Freeport street, is about 814 feet in length. (See "Assessment Streets.")

Parkman street, from North Grove street across North Anderson street, is about 195 feet in length. A contract for

constructing the surface of this street was awarded to Warren Brothers Company September 9, 1916. Work was begun November 13, 1916, and suspended November 28, 1916. This street varies in width from 32 to 33 feet, with a roadway 20 to 21 feet wide paved with Acme asphalt on a 6-inch Portland cement concrete base, with brick gutters 2½ feet wide. The contractor did the excavating, reset the edgestone and is to construct artificial stone sidewalks in the spring. The asphalt and brick gutters were laid under a five-year maintenance guaranty. The contractor furnished all materials to do the work. The former surface of the street was asphalt. Work will be resumed in the spring.

Randall street, from Albany street to Harrison avenue, is about 636 feet in length. (See "Assessment Street.")

Ripley road, from Harvard street to Vassar street, is about 685 feet in length. (See "Assessment Streets.")

Rosewood street, from Oakland street to Randolph road, is about 1,529 feet in length. (See "Assessment Streets.")

Temple street, from Spring street to Ivory street, is about 1,091 feet in length. (See "Assessment Streets.")

Theodore street, from Morton street to about 618 feet easterly, is about 624 feet in length. (See "Assessment Streets.")

Trent street, from Coleman street to Clarkson street, is about 228 feet in length. (See "Assessment Streets.")

Tuckerman street, from Dorchester street to Middle street, is about 375 feet in length. (See "Assessment Streets.")

Upland avenue, from Park street to Melville avenue, is about 748 feet in length. (See "Assessment Streets.")

West Canton street, from Appleton street to Tremont street, is about 900 feet in length. A contract for constructing the surface of this street was awarded to Warren Brothers Company September 9, 1916. Work was begun September 13, 1916, and completed October 25, 1916. This street varies in width from 44 to 45 feet, with a roadway 28 to 29 feet in width paved with Acme asphalt on a macadam base and brick gutters 30 inches wide on a concrete base. The contractor also reset the edgestone, relaid the flagging crosswalks and relaid the brick sidewalks. The intersection at Warren avenue, consisting of about 314 square yards of wood block, was relaid. The city furnished the sidewalk brick on the line of the work. All other materials were furnished by the contractor. The asphalt and brick gutters were laid under a maintenance guaranty. The former surface of the street was macadam.

Westwood street, from Richfield street to Wales place, is about 607 feet in length. (See "Assessment Streets.")

Worthington street, from Longwood avenue to Fenway, is about 1,161 feet in length. (See "Assessment Streets.")

The following streets are under contract for asphalt pavement. Work has not been started on any of them.

Atkins street, from Washington street to Stratton street.

Blake street, from Hyde Park line across Randolph road.

Bexley road, from Washington street to Florence street.

Blossom street, from Allen street to Fruit street.

Cummings road, from Commonwealth avenue to 855 feet easterly.

Fordham road, from Commonwealth avenue to Brighton avenue.

Fruit street, from Charles street to Blossom street.

Glencoe street, from North Beacon street to Garden street.

Halifax street, from South Huntington avenue to Pond View avenue.

Kenton road, from Washington street to 600 feet southeasterly.

Lorne street, from Harvard street to 650 feet northeasterly.

Matchett street, from Washington street to 343 feet northerly.

Moraine street, from South Huntington avenue to Jamaica-way.

North Anderson street, from Parkman street to Fruit street.

North Grove street, from Cambridge street to Fruit street.

Neptune road, from Bennington street to Boston, Revere Beach & Lynn Railroad.

Perham street, from Vermont street to New York, New Haven & Hartford Railroad.

Richwood street, from Centre street to Montview street.

Rugby road, from Randolph road to Oakland street.

Saville street, from Park street to Stratford street.

Selwyn street, from Farquhar street to 1,174 feet northeasterly.

Southwick street, from Neponset avenue to Freeport street.

West Broadway, from Dorchester avenue to E street.

William Jackson avenue, from Chestnut Hill avenue to Academy Hill road.

Wordsworth street, from Horace street to Coleridge street.

WOOD BLOCK PAVEMENT.

Boylston street, from Tremont street to Washington street, is under contract for wood block pavement but no work was done this year.

Devonshire street, from Adams square to Water street, is about 696 feet in length. A contract for repaving the surface of this street was awarded to Bernard E. Grant August 26, 1916. Work was begun November 12, 1916, and completed December 16, 1916. This street varies in width from 43 to 55 feet, with roadway varying from 28 to 39 feet. The roadway was repaved with wood block on a portland cement concrete base, laid under a five-year maintenance guaranty. The contractor relaid the brick sidewalks, which vary in width from 8 to 10 feet. There was some new edgestone furnished and set in the street by the abutters and the existing concrete base was built up to the proper grade for the new wood block pavement. There was no paving work done in or between the car tracks by either the City of Boston or the Boston Elevated Railway. Under the

contract it was the intention to pave the street with granite block, but at the request of the abutters the pavement was changed to wood block.

BITULITHIC PAVEMENT.

Kittredge street, from Cornell street to Beech street, is about 549 feet in length. (See "Assessment Streets.")

Montebello road, from Forest Hills street to Walnut avenue, is about 1,087 feet in length. (See "Assessment Streets.")

ASSESSMENT STREETS.

The following streets have been constructed or are in the process of construction under the provisions of chapter 393 of the Acts of 1906, and acts in amendment or in addition thereto:

Alexander street, from Bird street to 527 feet northerly, is about 527 feet in length. The contract for constructing the surface of this street was awarded to James Doherty June 16, 1916. Work was begun August 8, 1916, and suspended November 2, 1916. It is a 40-foot street with a 26-foot roadway paved with granite block on a 6-inch portland cement concrete base, granite edgestone, flagging crosswalks and artificial stone sidewalks. The straight edgestone and flagging were furnished by the city and hauled by the contractor. The city furnished the circular edgestone on the line of the work. All other materials were furnished by the contractor. The artificial stone sidewalks were laid under a five-year maintenance guaranty.

Ardent street, from Belgrade avenue to Colberg avenue, is about 301 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 18, 1916. Work was begun July 27, 1916, and completed October 11, 1916. It is a 40-foot street with a sheet asphalt pavement, consisting of 1½-inch wearing surface and 1½-inch bituminous binder on a 4-inch Portland cement concrete base, granite edgestone, flagging crosswalks and artificial stone sidewalks, 7 feet in width. The contractor furnished all materials necessary to do the work. The asphalt roadway and artificial stone sidewalks were laid under a five-year maintenance guaranty.

Amory street, from Centre street to Bragdon street, is about 1,408 feet in length. A contract for constructing the surface of this street was awarded to James Doherty August 21, 1916. Work was begun November 6, 1916, and suspended January 20, 1917. It is a 50-foot street with roadway 34 feet wide and 8-foot sidewalks. The contract calls for a granite block roadway and artificial stone sidewalks. The work done this year consisted of rough grading.

Atkins street, from Washington street to Stratton street, is about 618 feet in length. (Work not started.)

Augustus avenue, from Metropolitan avenue, across Ethel

street, is about 387 feet in length. A contract for constructing the surface of this street was awarded to Martino DeMatteo October 14, 1916. Work was begun October 23, 1916, and suspended November 17, 1916. It is a 40-foot street and is to have a bituminous macadam roadway, granite edgestone, flagging crosswalks and artificial stone sidewalks. The straight edgestone was furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. The work this year consisted of setting edgestone, placing cinders for artificial stone sidewalks and rough grading the roadway. The work will be resumed as early in the spring as weather conditions will permit.

Bardwell street, from South street to Ballard street, is about 613 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 18, 1916. Work was begun September 11, 1916, and suspended December 15, 1916. This street varies in width from 25 to 31 feet, and is to have a sheet asphalt pavement on a 4-inch Portland cement concrete base, granite edgestone and artificial stone sidewalks from 4 to 5 feet wide. The straight edgestone and corners were furnished by the city and hauled by the contractor. The work done this year consisted of setting edgestone, laying artificial stone sidewalks and concrete base for roadway. The asphalt surface will be laid early in the spring. The artificial stone sidewalks were laid under a five-year maintenance guaranty.

Bexley road, from Washington street to Florence street. (Not started.)

Blake street, from Hyde Park line to Randolph road. (Not started.)

Breck avenue, from Washington street to Langley road. (Not started.)

Brunswick street, from Blue Hill avenue to Normandy street, is about 639 feet in length. The contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun August 16, 1916, and completed November 13, 1916. It is a 40-foot street with a 26-foot roadway, consisting of sheet asphalt pavement on a 4-inch Portland cement concrete base, granite edgestone and artificial stone sidewalks, 7 feet in width. The edgestone was set and the roadway graded by the department force. The department force also laid the concrete base. The contractor placed the asphalt top and constructed artificial stone sidewalks. The asphalt and artificial stone was laid under a five-year maintenance guaranty.

Caledonian avenue, from Spring street about 210 feet southerly. A contract for excavating and grading this street was awarded to Frank Drinkwater November 13, 1916. Work was begun December 9, 1916, and is still going on. This street is 40 feet in width. The work this year consisted in stripping and excavating rock.

Caspian way, from Savin Hill avenue about 520 feet easterly. (Not started.)

Cedric street, from Magazine street to Langdon street, is about 616 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun August 3, 1916, and completed November 14, 1916. It is a 30-foot street with a 20-foot sheet asphalt roadway on a 4-inch Portland cement concrete base, granite edgestone and artificial stone sidewalks, 5 feet in width. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other materials were furnished by the contractor. The asphalt roadway and artificial stone sidewalks were laid under a five-year maintenance guaranty.

Centervale park, from Upland avenue to Bourneside street, is about 517 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun August 10, 1916, and suspended November 27, 1916. It is a 72-foot street with two 19-foot sheet asphalt roadways on a 4-inch concrete base, a 20-foot center loam space, granite edgestone and artificial stone sidewalks with loam spaces. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other materials necessary to do the work were furnished by the contractor. The asphalt pavement was laid under a five-year maintenance guaranty. The artificial stone sidewalks will be laid in the spring.

Condor street, from Glendon street to East Eagle street, is about 813 feet in length. A contract for constructing the surface of this street was awarded to the Bay State Dredging Company May 22, 1916. Work was begun May 31, 1916, and completed November 11, 1916. It is a 50-foot street, with a 34-foot Hassam block paved roadway on a 6-inch Portland cement Hassam concrete base. The contractor set the edgestone, laid the flagging crosswalks and laid brick sidewalks, 8 feet in width. The contractor built a rubble masonry sea wall on a pile foundation at the end of the street where the old wharf was and also topped out an old sea wall near Glendon street with a granite coping. The contractor also built wooden fences on top of these walls. The straight edgestone, circular edgestone and sidewalk bricks were furnished by the city on the line of the work. All other materials were furnished by the contractor. The former surface of this street was gravel.

Cornell street, from Orange street to Colberg avenue, is about 1,437 feet in length. A contract for constructing the surface of this street was awarded to Martino DeMatteo October 14, 1916. Work was begun December 2, 1916, and suspended December 30, 1916. It is a 40-foot street and is to

have a 6-inch bituminous roadway, granite edgestone, flagging crosswalks and artificial stone sidewalks, 7 feet in width. The work done this year has consisted of rough grading. Work will be resumed as early in the spring as practicable.

Crown path, from Washington street to Claybourne street, is about 221 feet in length. A contract for constructing artificial stone walks, steps and walls was awarded to James Doherty April 25, 1916. Work was begun July 5, 1916, and completed November 4, 1916. It is a 10-foot footway with an artificial stone walk, 8 feet wide, with a buttress and pipe rail fence. All the materials were furnished by the contractor.

Cummings road, from Commonwealth avenue 855 feet easterly. (Not started.)

Downer avenue, from DeWolf street to Sawyer avenue. (Not started.)

Dunlap street, from Washington street to Whitfield street, is about 804 feet in length. This street, with the exception of the asphalt surface and binder and artificial stone sidewalks, was constructed by the Paving Service forces. Work under the contract was begun September 24, 1915, and completed December 16, 1915. It is a 30-foot street with a 20-foot roadway, having a 1½-inch Trinidad asphalt wearing surface, 1½-inch bituminous binder on a 6-inch cement base, part granite edgestone, flagging crosswalks and a 5-foot artificial stone sidewalk. A contract for laying the asphalt roadway and artificial stone sidewalk was awarded to William J. Rafferty & Co. December 30, 1915. Work was begun December 23, 1915, and completed April 29, 1916. The contractor furnished all materials necessary to lay artificial stone sidewalk and asphalt surface and binder. The asphalt and artificial stone sidewalk were laid under a five-year maintenance guaranty.

Dunster road, from Centre street to Pond street, is about 1,770 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 18, 1916. Work was begun September 30, 1916, and suspended December 15, 1916. It is a 40-foot street and is to have a sheet asphalt pavement on a 4-inch Portland cement concrete base, granite edgestone and sidewalks, 7 feet in width, consisting of a 4½-foot artificial stone walk with a loam space. The artificial stone sidewalks were laid under a five-year maintenance guaranty. The work this year consisted of setting edgestone and laying the base for the asphalt pavement. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. Work will be resumed early in the spring.

Epping street, from Washington street to Norfolk street, is about 241 feet in length. The contract for constructing the surface of this street was awarded to the Central Construction

Company July 28, 1916. Work was begun November 13, 1916, and suspended December 15, 1916. It is a 30-foot street with a 20-foot asphalt roadway, granite edgestone and 5-foot artificial stone sidewalks. Only the rough grading and hauling of the edgestone has been done this year. Work will be resumed in the spring.

Eric avenue, from Savin Hill avenue to 344 feet northerly, is about 344 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun September 19, 1916, and suspended December 6, 1916. It is a 50-foot street with a 34-foot roadway of sheet asphalt laid on a 4-inch concrete base. The sidewalks, 8 feet in width, are to be of artificial stone. The straight edgestone and corners were furnished by the city and hauled by the contractor. The contractor furnished all other materials necessary to do the work. The asphalt pavement was laid under a five-year maintenance guaranty. The artificial stone sidewalks will be completed in the early spring.

Everton street, from Geneva avenue to Olney street, is about 690 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun September 2, 1916, and suspended December 26, 1916. It is a 40-foot street with a 26-foot Topeka roadway on a 4-inch Portland cement concrete base, granite edgestone and artificial stone sidewalks 7 feet in width. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other materials were furnished by the contractor. The Topeka pavement was laid under a five-year maintenance guaranty. The artificial stone sidewalks are not finished. The Paving Service force did the rough grading and set most of the edgestone. Work will be resumed early in the spring.

Fernboro street, from Lawrence avenue to Intervale street, is about 500 feet in length. A contract to construct this street was awarded to James Doherty December 3, 1915. Work was begun April 26, 1916, and completed June 28, 1916. The street as constructed is 40 feet in width, with a 26-foot roadway of sheet asphalt on a 6-inch Portland cement concrete base, granite edgestone, flagging crosswalks and artificial stone sidewalks 7 feet wide. The contractor did the excavating, which consisted of considerable rock cutting. The city furnished the straight edgestone, corners and flagging and the contractor hauled the same. The circular edgestone was furnished by the city on the line of the work. All other materials were furnished by the contractor. The asphalt pavement and artificial stone sidewalks were laid under a five-year maintenance guaranty.

Fordham road, from Commonwealth avenue to Brighton avenue. (Not started).

Gaffney street, from Commonwealth avenue to Boston & Albany Railroad, is about 822 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company October 9, 1916. Work was begun November 24, 1916, and suspended December 15, 1916. It is an 80-foot street and is to have a sheet asphalt roadway on a 4-inch Portland cement concrete base, brick gutters, granite edgestone and artificial stone sidewalks, one 10 feet and one 20 feet in width. The work this year has consisted of excavating and hauling part of the edgestone. Work will be resumed in the spring.

Glencoe street, from North Beacon street to Garden street. (Not started.)

Glendower road, from Kittredge street to Poplar street, is about 1,925 feet in length. A contract for constructing the surface of this street was awarded to the Charles J. Jacobs Company September 20, 1915. Work was begun October 26, 1915, and suspended December 15, 1915. Work was resumed April 27, 1916, and completed August 12, 1916. It is a 40-foot street with a sheet asphalt pavement on a 6-inch Portland cement concrete base, granite edgestone and artificial stone sidewalks 7 feet in width. The artificial stone sidewalks and asphalt roadway were laid under a five-year maintenance guaranty. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. The work this year consisted of constructing about 1,025 feet at the Kittredge street end.

Granada avenue, from Metropolitan avenue to Ethel street, is about 417 feet in length. A contract for constructing the surface of this street was awarded to Martino DeMatteo October 14, 1916. Work was begun November 6, 1916, and suspended December 13, 1916. It is a 40-foot street and is to have a 6-inch bituminous macadam roadway, granite edgestone, flagging crosswalks and artificial stone sidewalks 7 feet in width. The work this year has consisted of setting edgestone, placing cinders for artificial stone sidewalks and rough grading roadway. Work will be resumed early in the spring.

Halifax street, from South Huntington avenue to Pond View avenue. (Not started.)

Harwood street, from Willowwood street to Lucerne street, is about 725 feet in length. A contract for constructing the surface of this street was awarded to James Doherty December 3, 1915. Work was begun August 18, 1916, and suspended December 4, 1916. It is a 40-foot street with a 26-foot sheet asphalt roadway on a 6-inch Portland cement concrete base and artificial stone sidewalks 7 feet in width. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. The sheet asphalt pavement

was laid under a five-year maintenance guaranty. The artificial stone sidewalks will be completed early in the spring.

Hillcrest street, from Elgin street to Temple street, is about 525 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 18, 1916. Work was begun August 4, 1916, and suspended December 5, 1916. It is a 40-foot street and is to have a sheet asphalt pavement on a 4-inch Portland cement concrete base, granite edgestone and artificial stone sidewalks 7 feet in width. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. The work this season has consisted of setting edgestone, laying concrete base and the greater part of the artificial stone sidewalks. The work will be completed early in the spring.

Hill Top street, from Granite avenue to Hallet street, is about 1,990 feet in length. A contract for constructing the surface of this street was awarded to Martino DeMatteo. Work was begun October 25, 1916, and is still going on. It is a 50-foot street and is to have a 34-foot bituminous macadam roadway, granite edgestone, flagging crosswalks and sidewalks 8 feet in width, consisting of artificial stone. The straight edgestone was furnished by the city and hauled by the contractor. The roadway and sidewalks have been rough graded and a part of the edgestone set. A considerable amount of rough grading was done by the Paving Service force in 1915. This street will be completed early in the summer.

Homestead street, from Humboldt avenue to Elm Hill avenue, is about 1,125 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun October 11, 1916, and suspended December 15, 1916. When completed it will be a 40-foot street with a 26-foot sheet asphalt roadway on a 4-inch Portland cement concrete base, granite edgestone and artificial stone sidewalks 7 feet in width. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other materials were furnished by the contractor. The work done this year consisted of setting edgestone and rough grading the street.

Hubert street, from Shawmut avenue to Westminster street, is about 450 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun August 16, 1916, and suspended November 12, 1916. It is a 44-foot street with a 26-foot roadway of sheet asphalt laid on a 4-inch Portland cement concrete base, granite edgestone and artificial stone sidewalk 7 feet in width. The artificial stone sidewalks and roadway were laid under a five-year maintenance guaranty. The straight edgestone was furnished by the city and hauled

by the contractor. The circular edgestone was furnished by the city on the line of the work. The contractor furnished all other materials necessary to do the work. This street is practically completed with the exception of removing two trees. This work will be done early in the spring.

Jones avenue, from Mascot street to Ballou avenue, is about 993 feet in length. The contract for constructing the surface of this street was awarded to James Doherty November 3, 1915. Work was begun November 9, 1915, and suspended December 4, 1915. Work was resumed April 21, 1916, and completed June 13, 1916. It is a 40-foot street with a 26-foot asphalt roadway on a 6-inch Portland cement concrete base granite edgestone, flagging crosswalks and artificial stone sidewalks 7 feet in width. The filling and grading was done in 1915. All other work was completed this year. The straight edgestone, corners and paving blocks were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. The artificial stone sidewalks and asphalt roadway were laid under a five-year maintenance guaranty.

Kenton road, from Washington street 600 feet southeasterly. (Not started.)

Kittredge street, from Cornell street to Beech street, is about 549 feet in length. A contract for constructing the surface of this street was awarded to the Charles J. Jacobs Company November 29, 1915. Work was begun April 10, 1916, and completed July 6, 1916. It is a 40-foot street with a bitulithic pavement laid on a 6-inch Portland cement concrete base, granite edgestone and artificial stone sidewalks 7 feet in width. The artificial stone sidewalks and roadway were laid under a five-year maintenance guaranty. The straight edgestone, flagging and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other materials necessary to do the work were furnished by the contractor.

Langley road, from Breck avenue 571 feet easterly. (Not started.)

Lithgow street, from Talbot avenue to Wainwright street, is about 683 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun October 31, 1916, and suspended December 15, 1916. It is a 40-foot street with a 26-foot roadway. This street when constructed will have a sheet asphalt roadway and artificial stone sidewalks 7 feet in width. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. The work done this year consisted of setting the edgestone and grading part of the sidewalks. Work will be resumed early in the spring.

Lucas street, from Shawmut avenue to Washington street, is about 342 feet in length. This street was completed with the exception of the artificial stone sidewalks in 1915. A contract for constructing artificial stone sidewalks was awarded to John Kelly Company. Work was begun July 24, 1916, and completed July 26, 1916. This sidewalk was laid under a five-year maintenance guaranty.

Lorette street, from Centre street to Hillcrest street, is about 504 feet in length. A contract for constructing the surface of this street was awarded the Central Construction Company July 18, 1916. Work was begun August 1, 1916, and suspended October 27, 1916. It is a 40-foot street with a sheet asphalt pavement on a 4-inch Portland cement concrete base, granite edgestone and artificial stone sidewalks 7 feet in width. The artificial stone sidewalks and roadway were laid under a five-year maintenance guaranty. The straight edgestone, paving blocks and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. The contractor furnished all other materials necessary to do the work. This street is practically completed with the exception of a small amount of work at the Hillcrest street end. Work will be resumed early in the spring.

Lorne street, from Harvard street 650 feet northeasterly. (Not started.)

Matchett street, from Washington street 343 feet northerly. (Not started.)

Magnolia square, from Magnolia street, Dorchester. A contract for constructing artificial stone sidewalks in this square was awarded to the John Kelly Company November 9, 1915. Work was begun July 20, 1916, and completed July 22, 1916. The artificial stone sidewalks in this square were laid under a five-year maintenance guaranty.

Moraine street, from South Huntington avenue to Jamaica-way. (Not started.)

Morton street, from Norfolk street to the easterly line of the Midland Division, New York, New Haven & Hartford Railroad, is about 466 feet in length. It is an 80-foot street with a 56-foot bituminous macadam roadway, 12-foot sidewalks, full width artificial stone on the northerly side and on the southerly side in front of the Brewster School. The remainder of the sidewalk from the school to the railroad bridge is gravel. The grading, construction of the roadway and setting of the edgestone was done by the Paving Service forces. This work is nearly completed with the exception of the approach at the easterly end. A contract to furnish filling for this street was awarded to William J. Barry September 12, 1916. Work was begun September 4, 1916, and is nearly completed. Work will be completed early in the spring. A contract for constructing artificial stone sidewalks in this street was awarded to William J. Rafferty October 9, 1916. Work was begun October 19, 1916,

and completed December 1, 1916. The sidewalks were laid under a five-year maintenance guaranty.

Montebello road, from Forest Hills street to Walnut avenue, is about 1,087 feet in length. A contract for constructing the surface of this street was awarded to Martino DeMatteo September 29, 1915. Work was resumed May 8, 1916, and completed July 28, 1916. It is a 40-foot street with a 2-inch bitulithic pavement on a 6-inch concrete base, granite edgestone, flagging crosswalks and sidewalks 7 and 7.8 feet in width, consisting of 4½-foot artificial stone sidewalks with a loam space. The roadway and artificial stone sidewalks were laid under a five-year maintenance guaranty. The straight edgestone, flagging, paving blocks and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other materials were furnished by the contractor. With the exception of setting a part of the edgestone the street is practically completed.

Neptune road, from Bennington street to Boston, Revere Beach & Lynn Railroad. (Not started.)

Normandy street, from northerly side of Intervale street to Devon street, is about 490 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun September 1, 1916, and completed November 13, 1916. It is a 40-foot street with a 26-foot roadway of sheet asphalt on a Portland cement concrete base, granite edgestone, flagging crosswalks and artificial stone sidewalks 7 feet in width. The asphalt roadway and artificial stone sidewalks were laid under a five-year maintenance guaranty. The contractor furnished all material necessary to lay the asphalt roadway and artificial stone walks. All other work on this street was done by the Paving Service force.

Orchardfield street, from Dorchester avenue to Freeport street, is about 814 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company. Work was begun October 10, 1916, and suspended December 8, 1916. It is a 20-foot street with a 14-foot sheet asphalt roadway on a 4-inch cement concrete base, granite edgestone and artificial stone sidewalks 3 feet in width. The asphalt roadway was laid under a five-year maintenance guaranty. The straight edgestone and corners were furnished by the city and hauled by the contractor. The city furnished the circular edgestone on the line of the work. All other materials were furnished by the contractor. This street is finished with the exception of the artificial stone sidewalks, which will be completed early in the spring.

Patten street, from Hyde Park avenue to Bourne street. (Not started.)

Perham street, from Vermont street to New York, New Haven & Hartford Railroad. (Not started.)

Public alley No. 903, from Haviland street to Public alley No. 904, is about 426 feet in length. A contract for constructing the surface of this alley was awarded to James Doherty November 24, 1915. Work was begun April 11, 1916, and completed June 23, 1916. This alley as constructed is 10 feet wide with an 8-foot roadway and 1-foot sidewalks. The contractor furnished and laid a Hassam block pavement on a 6-inch Hassam block base, set the edgestone, relaid the crosswalks and placed a concrete backing between the back of the edgestone and the street line with the top finished as an artificial stone sidewalk. The straight edgestone and corners were furnished by the city and hauled by the contractor. The city furnished the special cut edgestone and circular edgestone on the line of the work. All other materials were furnished by the contractor.

Public alley No. 904, from Bickerstaff street to Public alley No. 903, is about 99 feet in length. A contract to construct the surface of this alley was awarded to James Doherty November 24, 1915. Work was begun April 11, 1916, and completed June 23, 1916. This alley as constructed is 10 feet wide with an 8-foot roadway and 1-foot sidewalks. The contractor furnished and laid a Hassam block pavement on a 6-inch Hassam block base, set the edgestone, relaid the crosswalks and placed a concrete backing between the back of the edgestone and the street line, with the top finished as an artificial stone sidewalk. The straight edgestone and corners were furnished by the city and hauled by the contractor. The city furnished the special edgestone and circular edgestone on the line of the work. All other material was furnished by the contractor.

Ralston street, from Dorchester avenue to Old Colony avenue, is about 1,174 feet in length. A contract for furnishing filling in this street was awarded to Frank J. Hannon January 2, 1917. Work was begun January 2, 1917, and will be completed early in the spring.

Randall street, from Albany street to Harrison avenue, is about 636 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun August 4, 1916, and completed October 21, 1916. This street varies in width from 30 to 38 feet, with an asphalt roadway 20 to 22 feet in width, granite edgestone, flagging crosswalks and artificial stone sidewalks 5 to 6 feet in width. The asphalt roadway and artificial stone sidewalks were laid under a five-year maintenance guaranty. The Paving Service forces set the edgestone and laid the concrete base.

Richwood street, from Centre street to Montview street. (Not started.)

Ripley road, from Harvard street to Vassar street, is about 685 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun September 25, 1916, and

suspended December 11, 1916. It is a 40-foot street with a 26-foot sheet asphalt roadway on a 4-inch Portland cement concrete base, granite edgestone, flagging crosswalks and artificial stone sidewalks 7 feet in width. The asphalt roadway was laid under a five-year maintenance guaranty. The straight edgestone, flagging and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished on the line of the work. This street is completed with the exception of the artificial stone sidewalks, which will be completed early in the spring.

Rosewood street, from Oakland street to Randolph avenue, is about 1,529 feet in length. A contract for constructing the surface of this street was awarded to the John J. Kelly Company September 17, 1915. Work was begun November 9, 1915. The work this year consisted of laying a Trinidad asphalt roadway on a concrete base and constructing artificial stone sidewalks. The roadway and sidewalks were laid under a five-year maintenance guaranty. Work on this street was completed July 19, 1916.

Rowell street, from Hancock street to Cushing avenue. (Not started.)

Rugby road, from Randolph road to Oakland street. (Not started.)

Saville street, from Park street to Stratford street. (Not started.)

Selwyn street, from Farquhar street to 1,174 feet northeasterly. (Not started.)

Southwick street, from Neponset avenue to Freeport street, is about 359 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. It is a 40-foot street with a 26-foot roadway and 7-foot sidewalks. When completed this street will have a sheet asphalt roadway on a 4-inch concrete base, granite edgestone and artificial stone sidewalks. The work done this year consisted of placing some filling and grading part of the street. Work will be resumed early in the spring.

Spring street, at West Department, Boston City Hospital, is about 1,528 feet in length. A contract to construct artificial stone steps, iron and wooden fences was awarded to the McNeil Construction Company October 4, 1915. Work was begun October 31, 1915, and completed June 3, 1916. The work this year consisted of building iron fences.

St. Rose street, from South street about 416 feet westerly. (Not started.)

Sturtevant street, from Park street to across Gibson street, is about 567 feet in length. A contract for constructing the surface of this street was awarded to James Doherty December 3, 1915. Work was begun December 6, 1915, and suspended December 29, 1915. Work was resumed April 4, 1916, and completed June 19, 1916. It is a 33-foot street with a 22-foot

Hassam block roadway, granite flagging, granite edgestone and 5½-foot artificial stone sidewalks. The straight edgestone, corners and flagging were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. The contractor furnished all other materials necessary to do the work. The artificial stone sidewalks were laid under a five-year maintenance guaranty.

Temple street, from Spring street to Ivory street, is about 1,091 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 18, 1916. Work was begun August 16, 1916, and suspended December 15, 1916. It is a 40-foot street and is to have a sheet asphalt pavement on a 4-inch Portland cement concrete base, granite edgestone and artificial stone sidewalks 7 feet in width. The straight edgestone, paving blocks and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other materials were furnished by the contractor. The work done this year consisted of setting edgestone, laying part of the concrete base for roadway and grading. Work will be completed early in the spring.

Theodore street, from Morton street about 618 feet easterly. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun November 11, 1916, and suspended December 15, 1916. It is a 40-foot street with a 26-foot asphalt roadway on a 4-inch concrete base, granite edgestone and artificial stone sidewalks 7 feet in width. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. The work this year consisted of rough grading. Work will be resumed early in the spring.

Trent street, from Coleman street to Clarkson street, is about 228 feet in length. A contract for constructing artificial stone sidewalks and laying a sheet asphalt wearing surface on this street was awarded to William J. Rafferty December 20, 1915. Work was begun on the asphalt surface December 16, 1915, and completed the same day. Work on the artificial stone sidewalk was started April 12, 1916, and completed April 19, 1916. The asphalt surface and artificial stone sidewalks were laid under a five-year maintenance guaranty. The contractor furnished all material necessary to do the work.

Tuckerman street, from Dorchester street to Middle street, is about 375 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun August 12, 1916, and completed October 6, 1916. This street varies in width from 28 to 30 feet and has an asphalt roadway 18 to 20 feet wide on a 4-inch Portland cement concrete base, granite edgestone, flagging crosswalks and artificial stone sidewalks 5 feet

in width. The artificial stone sidewalks and asphalt roadway were laid under a five-year maintenance guaranty. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other materials were furnished by the contractor.

Upland avenue, from Park street to Melville avenue, is about 748 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company July 28, 1916. Work was begun August 9, 1916, and suspended December 15, 1916. It is a 60-foot street with a 30-foot sheet asphalt roadway on a 4-inch Portland cement concrete base, granite edgestone and sidewalks, 15 feet in width, consisting of a 5-foot artificial stone walk and a loam space. The asphalt roadway was laid under a five-year maintenance guaranty. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other material was furnished by the contractor. This street is practically completed with the exception of the artificial stone sidewalk, which will be completed early in the spring. This street was regulated by the Paving Service forces in 1915.

Wait street, from Hillside street to Sachem street, is about 163 feet in length. A contract to build concrete walls, steps and platforms with iron fences and hand rails and artificial stone sidewalks in this street was awarded to James Doherty April 27, 1916. Work was started July 12, 1916, and completed September 11, 1916. This is a 40-foot street with 7-foot sidewalks. The contractor did the subgrading, set the edgestone, laid granite block gutters, laid flagging crosswalks, constructed a 6-inch tar macadam roadway, laid artificial stone sidewalks and built fences. The city furnished the straight edgestone, paving block, flagging and corners and the same was hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other materials were furnished by the contractor. The artificial stone sidewalks were laid under a five-year maintenance guaranty.

Washington street, from Morton street to Asticou road, is about 510 feet in length. A contract to construct this street was awarded to James Doherty August 30, 1916. Work was begun September 11, 1916, and suspended December 15, 1916. A new 20-foot roadway was constructed on the northwest side of the Forest Hills Elevated Station. This roadway is of 5-inch granite blocks laid with cement grout joints on a 6-inch concrete base. The roadway was laid under a five-year maintenance guaranty. The northwest roadway under the elevated station was discontinued and the new roadway takes its place. The work this year consisted of setting edgestone, paving the roadway and relaying the necessary paving at approaches and placing cinders for artificial stone sidewalk. The work will be completed as early in the spring as practicable.

Wensley road, from Bucknam street to Bickford avenue. (Not started.)

Westwood street, from Richfield street to Wales place, is about 607 feet in length. A contract for constructing the surface of this street was awarded to the Central Construction Company October 9, 1916. Work was begun November 11, 1916, and suspended December 14, 1916. When completed it will be a 40-foot street with a 26-foot sheet asphalt roadway on a 4-inch Portland cement concrete base with brick block gutters, granite edgestone, flagging crosswalks and artificial stone sidewalks 7 feet in width. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. The work done this year consisted of rough grading and setting the edgestone. Work will be resumed early in the spring.

Worthington street, from Longwood avenue to Fenway, is about 1,161 feet in length. The department forces set the edgestone, laid the crosswalks and placed the concrete base for the roadway. A contract to construct the surface of this street was awarded to the Central Construction Company January 15, 1916. The contractor furnished and laid a sheet asphalt pavement and constructed artificial stone sidewalks. The roadway and sidewalks were laid under a five-year maintenance guaranty.

Wordsworth street, from Horace street to Coleridge street. (Not started.)

William Jackson avenue, from Chestnut Hill avenue to Academy Hill road. (Not started.)

Wyoming street, from Wabeno street to Humboldt avenue. (Not started.)

Vista street, from Augustus avenue to Malvern road, is about 399 feet in length. A contract for constructing the surface of this street was awarded to Martino DeMatteo October 14, 1916. Work was begun October 31, 1916, and suspended December 1, 1916. It is a 40-foot street and is to have a 6-inch bituminous macadam roadway, granite edgestone and sidewalks, 7 feet in width, consisting in part of artificial stone and in part of artificial stone walk, 4½ feet in width, with a seeded loam space. The straight edgestone and corners were furnished by the city and hauled by the contractor. The circular edgestone was furnished by the city on the line of the work. All other material was furnished by the contractor. The work this year consisted of setting edgestone, placing cinders for artificial stone sidewalks and rough grading roadway. Work will be resumed early in the spring.

GENERAL.

Ashmont street, in front of St. Ann's Church. The contract for constructing artificial stone sidewalks in this street was

awarded to D. M. Biggs. Work was started September 20, 1916, and completed September 27, 1916. The contractor furnished all materials to lay the artificial stone sidewalks, which were laid under a five-year maintenance guaranty.

Belvidere street, from Massachusetts avenue to Dalton street. (Not started.)

Brookside avenue, in front of new school. A contract for constructing artificial stone sidewalks in this street was awarded to William J. Rafferty September 18, 1916. The contractor furnished all material necessary to lay the artificial stone sidewalks, which were laid under a five-year maintenance guaranty.

Corbet street, from Norfolk street to Morton street, is about 1,147 feet in length. A contract to construct artificial stone sidewalks in this street was awarded to James Doherty. The sidewalks, 7 feet in width, have been excavated and filled with cinders. Work will be completed early in the spring.

Dorchester avenue (easterly side), near Richmond street. A contract to construct artificial stone sidewalks in this street was awarded to D. M. Biggs & Co. The edgestone was furnished by the city and hauled and set by the contractor. All other material necessary to do the work was furnished by the contractor. The artificial stone sidewalks were laid under a five-year maintenance guaranty.

Dorchester avenue, from Ralston street 225 feet southerly. A contract to construct artificial stone sidewalks in this street was awarded to William J. Rafferty. The sidewalks as constructed are 10 feet in width. The contractor furnished all materials necessary to do the work. The sidewalks were laid under a five-year maintenance guaranty.

Dover street (north side), from Tremont street about 58 feet. A contract to construct artificial stone sidewalks in this street was awarded to V. Grande. The sidewalks as constructed are 10 feet in width. The contractor furnished all materials necessary to lay artificial stone sidewalks, which were laid under a five-year maintenance guaranty.

East Concord street (northerly side), from Harrison avenue 245 feet easterly. A contract to construct artificial stone sidewalks in this street was awarded to Jeremiah J. Sullivan June 30, 1916. The contractor reset the edgestone, relaid the granite block gutters and constructed artificial stone sidewalks 8 feet in width. The contractor furnished all materials necessary to do the work. The artificial stone sidewalks were laid under a five-year maintenance guaranty.

Falmouth street (easterly side), at Christian Science Church. A contract to construct artificial stone sidewalks in this street was awarded to William J. Rafferty & Co. August 23, 1916. The contractor did the excavating, reset the edgestone, relaid

the wood block pavement where necessary and constructed artificial stone sidewalks 8 feet in width. The sidewalks were laid under a five-year maintenance guaranty.

Florence street, from Ashland street to Poplar street. (Not started.)

Gladstone street, from Walley street to Upland street, is about 1,829 feet in length. A contract to regulate this street and construct artificial stone sidewalks was awarded to Agostino DeStefano September 15, 1915. Work was begun April 5, 1916, and completed July 19, 1916. This is a 40-foot street with 7-foot sidewalks. The contractor did the excavating, removed a number of trees, set the edgestone, paved the granite block gutters and constructed artificial stone sidewalks. The city furnished the edgestone and corners on the line of the work. The sidewalk was laid under a five-year maintenance guaranty.

Harrison avenue (easterly side), from Stoughton street to East Concord street, is about 306 feet in length. A contract to construct artificial stone sidewalks in this street was awarded to Jeremiah J. Sullivan June 30, 1916. The contractor did the excavating, reset part of the edgestone and laid artificial stone sidewalk under a five-year maintenance guaranty.

Harrison avenue, from Kneeland street to Harvard street, is about 285 feet in length. A contract to construct artificial stone sidewalks in this street was awarded to John McCourt. The contractor constructed the artificial stone sidewalks, 13 feet in width, under a five-year maintenance guaranty.

Haviland street, from Haviland terrace about 275 feet westerly. A contract to construct artificial stone sidewalks on this street was awarded to Charles J. Jacobs. The contractor constructed artificial stone sidewalks, 7 feet in width, under a five-year maintenance guaranty.

Hemenway street, a contract to construct artificial stone sidewalks in this street was awarded to Jeremiah J. Sullivan. The contractor constructed the artificial stone sidewalks under a five-year maintenance guaranty.

Huntington avenue (westerly side), at Christian Science Church Park. A contract to construct artificial stone sidewalks in this street was awarded to William J. Rafferty & Co. August 23, 1916. The contractor constructed the artificial stone sidewalks under a five-year maintenance guaranty.

Massachusetts avenue (east side), from Norway street about 67 feet northerly. A contract to construct artificial stone sidewalks in this street was awarded to V. Grande. The sidewalks, 15 feet in width, were laid under a five-year maintenance guaranty.

Medford street, from St. Mary's street to Kiswick street, is about 200 feet in length. A contract to construct artificial

stone sidewalks in this street was awarded to Jeremiah J. Sullivan. The sidewalks, 7 feet in width, were laid under a five-year maintenance guaranty.

Norfolk avenue (west side), Shirley street to Burrill street. (Not started.)

Poplar street, from Sycamore street to Brown avenue and Hilburn street, as extended, is about 1,766 feet in length. The contract for setting edgestone and constructing artificial stone sidewalks in this street was awarded to the John Kelly Company July 30, 1915. Work done this year consisted of constructing artificial stone sidewalks from Sycamore street to about 60 feet south of Hilburn street (on the east side and on the west side) to about 240 feet south of Hilburn street. These sidewalks were laid under a five-year maintenance guaranty.

Poplar street, from Washington street to Sycamore street, is about 1,107 feet in length. A contract for constructing artificial stone sidewalks in this street was awarded to James Doherty November 22, 1915. Work was begun May 24, 1916, and completed June 13, 1916. The contractor reset part of the edgestone, relaid the flagging crosswalks, repaved part of the granite block gutters and constructed artificial stone sidewalks 6 to 7 feet in width. The artificial stone sidewalks were laid under a five-year maintenance guaranty.

Rose street, from Harrison avenue to Albany street. A contract to patch and repair the macadam surface of this street was awarded to the Independent Coal Tar Company. This street was resurfaced with taric compound.

Saratoga street, from Butler avenue to Washburn avenue, is about 1,328 feet in length. A contract to construct artificial stone sidewalks in the street was awarded to Agostino DeStefano December 1, 1915. The contractor set the edgestone, laid the flagging crosswalks and constructed artificial stone sidewalks 8 feet in width. The sidewalks were laid under a five-year maintenance guaranty.

Scotia street, from St. Cecilia street to Dalton street. (Not started.)

Shirley street (south side), Clifton street to Norfolk avenue. (Not started.)

Stoughton street (south side), from Harrison avenue 266 feet easterly. A contract to construct artificial stone sidewalks in this street was awarded to Jeremiah J. Sullivan June 30, 1916. The contractor reset part of the edgestone and laid the artificial stone sidewalks under a five-year maintenance guaranty.

St. Cecilia street, from Boylston street to Belvidere street. (Not started.)

Tremont street (east side), from Dover street about 89 feet northerly. A contract to construct artificial stone sidewalks in this street was awarded to A. Grande. The contractor constructed artificial stone sidewalks 13 feet in width. These sidewalks were laid under a five-year maintenance guaranty.

Wachusett street, from Weld Hill street to Barlow street, is about 399 feet in length. A contract for excavating and grading this street was awarded to John Landis January 13, 1916. The work consisted of excavating earth and rock and grading the street.

Washington street, from Tip Top street to the Newton line, is about 1,325 feet in length. A contract to construct artificial stone sidewalks in this street was awarded to Agostino DeStefano November 24, 1915. The contractor laid the artificial stone sidewalks under a five-year maintenance guaranty.

Work Done by Contract, 1916.

	Old.	New.	Total. Old and New.
Edgestone set.....	16,891 linear feet.	36,501 linear feet.	53,392 linear feet.
Crushed stone foundation for edgestone.....	.....	1,498 "	1,498 "
Artificial stone curb laid.....	36 "	50 "	86 "
Concrete base laid.....	3,729 square yards.	79,316 square yards.	83,045 square yards.
Granite block paving with asphalt joints.....	.....	119 "	119 "
Granite block paving laid on a gravel base, with gravel joints.....	1,769 "	124 "	1,893 "
Flagging crosswalks laid on a gravel base, gravel joints.....	205 "	12 "	217 "
Granite block paving laid, with grout joints.....	400 "	22,463 "	22,863 "
Flagging crosswalks laid, with grout joints.....	2 "	387 "	389 "
Wood block pavement laid.....	314 "	1,913 "	2,227 "
Asphalt and binder laid.....	47 "	50,228 "	50,275 "
Asphalt patching.....	27,347 "	.....	27,347 "
Bituminous concrete binder laid.....	37 cubic yards.	.....	37 cubic yards.
Bitulithic patching, full depth.....	1,272 square yards.	.....	1,272 square yards.
Bitulithic surface patching.....	549 "	.....	549 "
Bitulithic pavement laid.....	7 "	4,639 "	4,646 "
Hassam block pavement laid.....	.....	5,123 "	5,123 "
Brick block pavement laid (gutters).....	.....	2,175 "	2,175 "
Brick sidewalks laid.....	6,645 "	1,981 "	8,626 "

Coal tar sidewalks laid.....	34	"	"	34	"	"
Artificial stone sidewalks laid.....	1,204	"	"	29,873	"	31,077
Earth excavation.....						34,971 cubic yards.
Water box excavation.....						360
Rock excavation.....						1,014
Filling furnished.....						5,953
Macadam surface placed, tar preparation.....				281 square yards.		281 square yards.
Loam furnished and placed.....				225 cubic yards.		225 cubic yards.
Loam graded and seeded.....				803 square yards.		803 square yards.
Covers reset.....						223
Concrete wall.....				294 linear feet.		294 linear feet.
Concrete wall.....				81.1 cubic yards.		81.1 cubic yards.
Sea wall, granite.....				148 linear feet.		148 linear feet.
Concrete backing for edgestone.....				741	"	741
Ground water drain.....				442	"	442
Artificial stone steps.....				277	"	277
Iron fence.....				607	"	607
Pipe rail fence.....				625	"	625
Wooden fence.....				148	"	148
Inlets.....				8	"	8

1. 13,683 square yards laid, 4 inches in depth, remainder 6 inches deep.
2. 1,204 square yards laid with old blocks, formerly with gravel or pitch and pebble joints.
3. 47 square yards laid with old flagging, formerly with gravel or pitch and pebble joints.

Work Done by Paving Service Forces, 1916.

	Old.	New.	Total, Old and New.
Edgestone set.....	40,435 linear feet.	15,564 linear feet.	56,999 linear feet.
Concrete base laid.....	.....	3,857 square yards.	3, 857 square yards.
Granite block paving with gravel joints laid.....	58,868 square yards.	30 "	58,898 "
Granite block paving with pitch and pebble joints laid.....	5,157 "	366 "	5,523 "
Granite block paving with grout joints laid.....	1,953 "	3,922 "	5,875 "
Gutter paving with gravel joints laid.....	22,670 "	3,685 "	26,355 "
Gutter paving with pitch and pebble joints laid.....	.....	146 "	146 "
Gutter paving with grout joints laid.....	.....	323 "	323 "
Flagging crosswalks with gravel joints laid.....	11,208 "	171 "	11,379 "
Flagging crosswalks with pitch and pebble joints laid.....	56 "	.....	56 "
Flagging crosswalks with grout joints laid.....	44 "	.....	44 "
Wood block pavement with sand joints laid.....	.....	72 "	72 "
Concrete pavement laid.....	.....	9,757 "	9,757 "
Tar laid on granite blocks.....	520 "	.....	520 "
Macadam surface placed (water binder).....	35,458 "	.....	35,458 "
Macadam surface placed (tar preparations).....	98,427 "	.....	98,427 "
Macadam surface placed (asphalt preparations).....	45,908 "	711 "	46,619 "
Macadam surface patched.....	445,637 "	.....	445,637 "
Asphalt spread on macadam (blanket coat)*.....	3,872 "	.....	3,872 "

Brick sidewalks laid.....	68,429	"	1,014	"	69,443	"
Excavating for sidewalks.....			411	"	411	"
Roadway excavating.....			1,136	cubic yards.	1,136	cubic yards.
Roadway excavating.....			8,610	square yards.	8,610	square yards.
Gravel or crushed stone sidewalks surfaced.....	74,015	"	11,445	"	85,460	"
Grading (no pavement laid).....			1,199	cubic yards.	1,199	cubic yards.
Grading (no pavement laid).....			198	square yards.	198	square yards.
Rock excavating.....			100	cubic yards.	100	cubic yards.
Mac brick pavement.....	144	"			144	square yards.

* Includes 2,271 square yards Colpoeh roadway.

FINANCIAL STATEMENT, PAVING SERVICE.

Maintenance.

Appropriation.	\$981,594 54
Transfers	2,315 70
	<u>\$983,910 24</u>

Special Appropriations.

Granolithic sidewalks:

Balance February 1, 1916	\$26,227 75
Transferred from Reserve Fund	25,000 00
	<u>\$51,227 75</u>
Expended during the year	16,574 44
	<u>\$34,653 31</u>

Reconstructing and repairing streets by contract:

Appropriation (from taxes)	\$400,513 35
Transferred from Park and Recreation Department	100,000 00
	<u>\$500,513 35</u>
Expended during the year	170,650 41
	<u>\$329,962 94</u>

Summary of Expenditures.

Paving Service	\$983,910 24
Highways, making of	283,644 79
Granolithic sidewalks	16,574 44
Belgrade avenue extension and Beech street widening	59 40
Chelsea street, Charlestown widening	30 30
Hyde Park avenue, widening	490 98
Norfolk street, Dorchester, widening	570 58
Reconstructing and repairing streets by con- tract	170,650 41
	<u>\$1,455,931 14</u>

INCOME.

Statement showing the amount of bills deposited with the City Collector from February 1, 1916, to January 31, 1917, and credited to the general revenue.

Edgestone and sidewalk assessments	\$22,996 16
Permits	29,796 84
Services of inspectors	4,757 00
Labor, material furnished, sale of junk, rents, etc.	12,326 44
	<u>\$69,876 44</u>

Amount paid into city treasury during the year:

Edgestone and sidewalk assessments	\$16,516 50
Permits	28,867 32
Services of inspectors	4,505 00
Labor, material furnished, sale of junk, rents, etc.	14,564 42
	<u>\$64,453 24</u>

Objects of Expenditures from the Maintenance Appropriation Classified by Districts from
February 1, 1916, to January 31, 1917.

Districts.	Macadam Repairs.	Block Repairs.	Removal of Snow.	Street Cleaning.	Edgestone and Sidewalk Repairs.	Crosswalk Repairs.	Street Work.	Schedule A, Miscellaneous.	Totals.
South Boston and Dorchester North.....	\$10,604 19	\$3,466 23	\$13,492 37	\$4,157 87	\$7,972 81	\$865 69	\$27,892 02	.....	\$58,451 18
East Boston and Breed's Island.....	7,394 08	763 49	5,992 93	927 91	2,954 44	236 81	11,241 64	.....	29,511 30
Charlestown.....	10,412 12	5,696 81	8,416 05	2,406 73	5,436 38	1,050 94	2,418 34	.....	35,837 37
Brighton.....	9,744 93	40 24	8,876 96	13,616 53	1,334 77	328 21	24,447 70	.....	58,389 34
West Roxbury.....	18,260 40	65 95	13,717 49	15,032 58	3,567 62	202 89	27,323 82	.....	78,170 75
Dorchester.....	10,953 67	142 89	9,603 31	4,670 43	5,056 43	97 35	21,845 65	.....	52,369 73
Roxbury South and Jamaica Plain.....	14,455 02	4,038 41	24,916 16	28,136 45	9,851 45	1,271 91	8,402 44	.....	91,071 84
South End and Roxbury North.....	11,692 96	5,070 88	40,067 46	4,951 65	18,675 08	3,913 35	17,011 11	.....	101,382 49
Ashmont.....	10,468 83	141 71	5,734 37	5,434 99	1,817 04	172 59	10,868 27	.....	34,637 80
North and West Ends and Back Bay.....	4,378 06	5,857 76	45,477 62	3,604 04	6,870 41	3,217 01	6,163 49	.....	75,568 39
Hyde Park.....	5,749 56	6 17	5,464 79	7,128 57	1,799 04	33 22	7,281 13	.....	27,462 48
Miscellaneous.....	.....	.....	.....	.....	.....	.....	.....	\$331,057 57	331,057 57
Totals.....	\$114,113 82	\$25,290 54	\$181,759 51	\$90,067 75	\$65,335 47	\$11,389 97	\$164,895 61	\$331,057 57	\$983,910 24

SCHEDULE A.

Salary of division engineer (part of)		\$834 00
Salary of chief engineer (part of)		900 00
Salary of chief inspector (part of)		95 90
Salaries of office clerks, stenographers and messengers		2,340 75
Salary of engineer in charge		3,000 00
Salaries of assistant engineers (office work)		14,378 40
Salaries of permit office clerks		8,240 83
Salaries of permit office inspectors		14,647 96
Salaries of inspectors on artificial stone sidewalks		2,208 38
Salaries of engineering inspectors (office work)		3,513 40
Salaries of district inspectors		3,679 88
Salaries of numbering clerks		1,196 52
Salary of medical inspector (part of)		311 11
Medical attendance on injured employees		28 00
Salary of chief veterinarian (part of)		472 22
Salary of inspector of horses		996 84
Salary of constable		1,028 37
Pensions paid to veterans of Civil War (retired)		13,498 25
Pensions paid to retired laborers		29,838 55
Pay allowed injured employees		2,797 99
Pay allowed employees on military service		197 50
Vacations allowed laborers and mechanics, etc.		21,252 65
Holidays, not including holidays charged to street accounts		40,773 88
Automobile expense, division engineer		1,793 28
Gasolene, grease, etc.	\$255 12	
Repairs	140 25	
New tires and tubes	228 79	
Repairing tubes and tires	11 60	
Supplies, etc.	54 27	
Wages of chauffeur	1,092 00	
Miscellaneous	11 25	
Automobile expense, engineer in charge		1,886 30
Gasolene, grease, etc.	292 21	
Repairs	192 75	
New tires and tubes	206 35	
Repairing tires and tubes	11 15	
Supplies, etc.	34 34	
Wages of chauffeur	1,134 00	
Miscellaneous	15 50	
Automobile expense, emergency car		709 33
Gasolene, grease, etc.	169 28	
New tubes and tires	78 26	
Repairs	440 25	
Carried forward		\$170,620 29

<i>Brought forward</i>		\$170,620 29
Miscellaneous	\$15 54	
Supplies	6 00	
Automobile expense, chief inspector		672 57
Gasolene, grease, etc.	55 91	
Repairs	77 33	
New tires and tubes	112 33	
Storage	45 00	
Wages of chauffeur	357 00	
Supplies	25 00	
Automobile expense, foreman Brighton district		1,575 52
Gasolene, grease, etc.	243 56	
Repairs	296 22	
New tires and tubes	265 45	
Repairing tires and tubes	6 60	
Supplies, etc.	63 69	
Wages of chauffeur	680 00	
Miscellaneous	20 00	
Automobile expense, foreman Dorchester district		396 41
Gasolene, grease, etc.	171 91	
Repairs	98 42	
New tires and tubes	58 53	
Repairing tires and tubes	7 00	
Supplies, etc.	48 39	
Miscellaneous	12 16	
Automobile, claim agent		279 06
Gasolene, grease, etc.	60 75	
Repairs	22 13	
New tires and tubes	146 56	
Supplies, etc.	35 52	
Miscellaneous	14 10	
Newspapers, magazines, etc.		3 00
Advertising		52 28
Printing		2,940 97
Postage		321 06
Stationery		652 98
Directories		28 00
Traveling expenses, car fares, etc.		649 13
Engineering supplies and incidentals		2,260 08
Stationery	640 91	
Printing	297 40	
Postage	162 58	
Car fares	324 09	
Transit repairs	225 90	
Laboratory supplies and miscellaneous charges	609 20	
<i>Carried forward</i>		\$180,451 35

PUBLIC WORKS DEPARTMENT.

185

<i>Brought forward</i>	\$180,451 35	
Artificial stone sidewalks (see reconstruct- ing and repaving streets by contract)		281 22
Rebates allowed to contractors	\$74 97	
Repairs made	206 25	
Asphalt and bitulithic pavements repaired (see also reconstructing and repaving streets by contract)		3,749 20
Temporary repairs, labor, mate- rials, etc.	\$903 36	
Engineering	1,634 95	
Inspection	817 25	
Engineering expense	2 50	
Amount paid to Central Con- struction Company, asphalt re- pairs	148 53	
Amount paid to Barber Asphalt Paving Company, asphalt re- pairs	242 61	
Brick block repairs, labor, materials, etc.		2,226 67
Wood block repairs, labor, materials, etc.		2,750 24
New crosswalks, not included elsewhere		825 44
Fence repairs		3,881 93
Plank walk repairs		1,677 31
Edgestones, sidewalks and gutters (new) not included elsewhere		12,723 09
Rent of land, wharves, etc. (net)		1,683 33
Taxes (net)		445 38
Wharfage		150 00
Horses purchased		700 00
Expense of stables, including drivers, feeders, fodder, horseshoeing, repairs to harnesses, wagons, carts, etc.	\$126,393 75	
Amount earned by department teams	117,024 88	
		<hr/>
		9,368 87
Electric lighting at yards and stables		1,409 46
Gas lighting at yards and stables		159 11
Fuel for heating yard buildings, offices and stables, Electric appliances, labor and stock, yards and stables		2,353 69
		25 40
Concrete mixers, repairs, supplies, etc.		406 82
Rent of towels		130 00
Stones, pipes, grates, etc.		111 22
Telephone service		1,630 84
Derricks, repairing, etc.		244 90
Oil for street lighting		709 35
		<hr/>
<i>Carried forward</i>	\$228,094 82	

<i>Brought forward</i>		\$228,094 82
Ice		63 33
Oatmeal		75 75
Signs, making and putting up		8,684 65
Labor at snow dumps		751 71
Tools, hardware, etc., new, cost of repairing, etc.,		17,562 05
Road King graders and scrapers		2,302 00
Repairs at Traverse Street Subway		65 00
Expense of yards, including salaries of foremen, clerks, yardmen, watchman, tool wagons, etc. .		39,026 83
Repairs of yard buildings, stables, sheds, shanties, etc.		5,768 84
Sanding icy and slippery streets		3,108 72
Repairing culverts and building new culverts .		108 84
Hoister engine, fuel and supplies		171 55
Uniforms, etc.		168 94
Trimming and removing trees		70 79
Borings at Albany Street Yard		202 76
Chests for Central Office, making		101 80
Repairing fence at South Street Subway . . .		250 26
Freight and cartage		48 56
Marking catch-basins		153 00
Asphalt, oil, analysis and paving block testing .		557 00
Photographs		45 50
Cleaning vault		24 00
Sundries		24 85
Sewer Service, work done and materials furnished, not shown elsewhere		122 50
Park and Recreation Department, work done and materials furnished, not shown elsewhere .		63 55
Work done and materials furnished individuals, corporations, etc.		1,763 38
Stock, materials	\$65,108 92	
Stock, handling and teaming	21,687 08	
	<hr/>	
	\$86,796 00	
Less stock delivered on streets	62,860 55	
	<hr/>	
		23,935 45
		<hr/>
		\$333,316 43
Steam rollers, amount earned	\$18,856 40	
Steam rollers, cost of operating, re- pairing, etc.	16,597 54	
	<hr/>	
		2,258 86
		<hr/>
		<u>\$331,057 57</u>

**STREET WORK DONE BY DEPARTMENT FORCE AND
CHARGED TO MAINTENANCE APPROPRIATION SHOWN
IN DETAIL. WORK ON OTHER STREETS SHOWN ON
LARGE INSERT.**

Beacon street, from Newton line towards Cleveland circle. (Work unfinished.) Concrete roadway built 6 inches deep. Length, 2,316 linear feet. Width, 25 feet. Area, 6,433 square yards. Tar macadam gutters laid 3 inches deep; area, 4,976 square yards.

Labor, engineering	\$9 76
Labor, excavating for edgestone	73 58
Labor, resetting for edgestone	63 75
Labor, gutter excavating	42 00
Labor, gutter repaving	41 25
Labor, grading for gravel sidewalks	289 15
Labor, excavating roadway	2,420 08
Labor, spreading stone	366 30
Labor, mixing concrete and placing same	2,633 02
Flagging, 603 feet	217 08
Teaming	581 24
Steam roller	568 50
Crushed stone, 1,960 tons	2,705 03
Lime hydrated, 30 tons	375 00
Sand, 728 cubic yards	691 60
Cement, 2,337 barrels	4,434 81
Tarvia, 8,359 gallons	647 87
566 pounds canvas covering	78 90
Boots	6 40
Moving booth	50 00
Lumber	123 74
Hose, 200 feet garden	19 00
Hose, 15 feet fire	7 50
Pipe fittings and laying	144 28
Expansion joint, 2,240 feet	113 33
Wire mesh, 7,383 pounds	332 24
Hardware	101 85
Concrete mixer, hire of	360 00
Miscellaneous	8 65
Fuel	107 07
Oil	1 34
Waste	7 15
	<hr/>
	\$17,621 47

Charles street, from Dorchester avenue to Geneva avenue. Length, 1,395 feet. Area, 4,907 square yards. Two thousand four hundred eighty-six square yards. Asphalt macadam surface laid 7 inches deep, 1,354 square yards. Concrete pavement laid 6 inches deep, 166 square yards. Gutter repaved with asphalt joints and 138 square yards. Gutter repaved with grout joints.

Engineering	\$58 65
Engineering expense	1 15
Edgestone	7 30
Lumber	46 22
Cement, 327 barrels	653 20
Crushed stone, 1,003 tons	1,303 45
Sand	11 25
Wire mesh, 2,474 pounds	111 32
	<hr/>
<i>Carried forward</i>	\$2,192 54

<i>Brought forward</i>	\$2,192 54
Gravel	33 00
Road oil Bermudez, 7,518 gallons	1,351 11
Bolts, etc., for strike board	9 30
Expansion joint, 1,990 feet	100 68
Hose	14 25
Water barrels	4 50
Hydrated lime, 1 ton	12 50
Steam roller	494 00
Repairs to strike board	54 10
Labor, street cleaning	79 50
Labor, excavating edgestone	31 63
Labor, resetting edgestone	27 50
Labor, roadway excavating	1,180 89
Labor, roadway spreading	246 24
Labor, mixing and placing concrete	682 59
Labor, crosswalk relaying	47 75
Labor, gutter excavating	207 24
Labor, gutter repaving	145 75
Teaming	580 65
Use of concrete mixer	85 00
	<hr/>
	\$7,580 72
Credit: Old blocks	309 00
	<hr/>
	<u>\$7,271 72</u>

North Centre street, from Hanover street to North street. Length, 375 feet. Area, 832 square yards. Repaved 832 square yards roadway with second-hand blocks on a concrete base with pitch and pebble joints, reset 465 feet edgestone, relaid 161 square yards brick sidewalks, and 39 square yards crosswalks relaid.

Edgestone	\$11 78
Bricks, 4,200 sidewalk	52 50
Lumber	10 00
Crushed stone, 139.5 tons	181 35
Pebbles, 25.3 tons	69 64
Cement, 104 barrels	205 92
Fuel	10 50
Gasolene	5 00
Pitch, 11 tons	133 20
Gravel, 189 tons	122 62
Sand, 9 tons	9 00
Labor on templets	5 50
Labor, edgestone excavating	39 00
Labor, edgestone resetting	56 25
Labor, sidewalk excavating	6 50
Labor, sidewalk relaying	43 25
Labor, roadway excavating	292 00
Labor, roadway paving	205 00
Labor, concrete mixing and placing	407 50
Labor, crosswalk relaying	15 00
Teaming	767 00
	<hr/>
	\$2,648 51
Credit: Old blocks	64 10
	<hr/>
	<u>\$2,584 41</u>

SPECIAL APPROPRIATIONS.

Belgrade avenue Extension and Beech street, widening. (Work not started.)
 Engineering \$59 40

Chelsea street (Charlestown), widening. (Work not started.)
 Engineering \$30 30

Hyde Park avenue, widening. (Work not started.)
 Engineering \$490 98

Norfolk street (Dorchester), widening. (Work not started.)
 Engineering \$570 78

* *Charles street* (now Caledonian avenue), between Spring and Hamilton streets. Excavated and graded. (Work unfinished.)

Engineering \$84 92
 Inspection 54 50
 Advertising 4 50

Amount paid to Frank Drinkwater, under contract:

200 cubic yards earth excavation
 @ \$1 \$200 00

80 cubic yards rock excavation
 @ \$2 160 00

\$360 00

Less 15 per cent retained 54 00

306 00

\$449 92

GRANOLITHIC SIDEWALK CONSTRUCTION.

Amherst street, from Penfield street to Belgrade avenue. (Work not started.)

Engineering expense \$0 45

Ashmont street, from Neponset avenue 200 feet westerly.

Engineering \$7 00

Inspection 3 53

Engineering expense 40

Amount paid to D. M. Biggs & Co.:

187 feet edgestone reset @ 15c., \$28 05

42 square yards block gutter
 repaved @ 50c. 21 00

1,652 square feet artificial stone
 sidewalks furnished and
 laid @ 18c. 297 36

6 hours, stonecutter 4 14

350 55

\$361 48

* This account charged to Highways, making of, instead of Special Appropriation.

* *Bayswater street*, from Saratoga street to Austin avenue. Length, 1,045 linear feet. Edgestone reset, granite block gutters repaved and artificial stone sidewalks constructed. (Work done in 1915.)

Engineering expense \$0 43

Amount paid Agostino DeStefano, under contract:

434 linear feet existing edge-stone reset @ 12c.	\$52 08
145 square yards existing granite block paving relaid @ 60c.	87 00
84 square yards existing brick sidewalks relaid @ 40c.	33 60
11,258 square feet artificial stone sidewalks furnished and laid @ 11c.	1,238 38
179 square feet artificial stone driveways furnished and laid @ 14c.	25 06

\$1,436 12

Less amount paid in 1915, 1,364 31

71 81

\$72 24

Belfort street, from Dorchester avenue to Saxton street. (Work not started.)

Engineering expense \$0 50

Belvidere street, from Massachusetts avenue to Dalton street. (Work not started.)

Engineering \$34 50

Advertising 94

\$35 44

Birch street, from Penfield street to Corinth street. (Work not started.)

Engineering expense \$0 75

Blue Hill avenue (easterly side), Washington street to Morton street; (westerly side), Cheney street to Seaver street. (Unfinished work from 1915.)

Engineering \$6 09

Inspection 32 17

Engineering expense 35

Amount paid to James Doherty:

2 manholes regulated @ \$3, \$6 00

125 feet 6 inches edgestone reset @ 11c. 13 81

37 square yards gutter repaved @ 30c. 11 10

2,121 square feet artificial stone sidewalks furnished and laid @ 14½c. 312 85

343 76

\$382 37

Credit: 765 old blocks 15 30

\$367 07

* Done in connection with Gladstone street.

PUBLIC WORKS DEPARTMENT.

191

Bourne street (north side), from Walk Hill street to Patten street. (Work done in 1915.)

Engineering expense \$0 10

Bowdoin street (west side), from Bowdoin avenue to Bullard street. (Work done in 1915.)

Engineering expense \$0 15

Brooks street, from Faneuil street to Hobart street. (Work not started.)

Engineering expense \$1 20

Brookside avenue, from Boylston street to Green street. (Work not started.)

Engineering expense \$0 30

Corbet street, from Norfolk street to Morton street. (Work started, no payments made on contract.)

Engineering	\$20 45	
Inspection	61 55	
Engineering expense	50	
Advertising	93	
Edgestone	6 72	
	<u> </u>	<u>\$90 15</u>

Creighton street, from Centre street to Day street. (Work done in 1915.)

Engineering expense \$0 20

Day street, from Centre street to Minden street. (Work done in 1915.)

Engineering expense \$0 60

Dorchester avenue (easterly side), near Richmond street.

Engineering	\$12 45
Inspection	30 01
Engineering expense	45
Advertising	4 50
Edgestone, 17 feet straight	10 61
	<u> </u>
	\$58 02

Credit: 1 small corner	\$3 60
665 old granite blocks	13 30
	<u> </u>
	16 90

\$41 12

127 linear feet existing edge-stone reset @ 15c.	\$19 05
18 square yards existing granite block paving relaid, gravel joints, @ 50c.	9 00
1,623 square feet artificial stone sidewalks furnished and laid @ 18c.	292 14
100 square feet artificial stone driveways furnished and laid @ 18c.	18 00
	<u> </u>
	\$338 19

Less 15 per cent retained,	50 73
	<u> </u>

287 46

\$328 58

Dorchester avenue, at Nos. 1542, 1544, 1582, 1584, 1586 and 1588. (Work not started.)

Engineering expense	\$0 10	
Advertising	92	
	<hr/>	<u>\$1 02</u>

Dorchester avenue, 110 feet southerly from Ralston street.

Amount paid to William Rafferty & Co.:

2,125 square feet artificial stone walks constructed @ 20c. .	<u>\$425 00</u>
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Dover street (north side), from Tremont street to 58 feet easterly.

Engineering	\$33 61	
Inspection	14 25	
Engineering expense	55	
Advertising	93	
Amount paid to V. Grande, under contract:		
72 linear feet existing edge-stone reset @ 25c.	\$18 00	
16 square yards existing granite block paving relaid @ \$1	16 00	
4 square yards existing brick sidewalks relaid @ 60c.	2 40	
659 square feet artificial stone sidewalks furnished and laid @ 24c.	158 16	
	<hr/>	
	\$194 56	
Less 15 per cent retained	29 18	
	<hr/>	
	165 38	
	<hr/>	<u>\$214 72</u>

Dracut street, from Dorchester avenue to Bruce street. (Work done in 1915.)

Engineering expense	<u>\$0 05</u>
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East Concord street (northerly side), from Harrison avenue to 245 feet easterly. Length, 248 linear feet. Area, 1,759 square feet. Edgestone reset, granite block gutters repaved and artificial stone sidewalks constructed.

Engineering	\$10 58	
Inspection	14 00	
Engineering expense	15	
Advertising	1 50	
	<hr/>	
	\$26 23	
Credit: 2,000 old sidewalk bricks	14 00	
	<hr/>	
	\$12 23	

Amount paid to Jeremiah J. Sullivan, under contract:

241 linear feet existing edgestone reset @ 12c.,	\$28 92
80 square yards existing granite block paving relaid @ 40c.	32 00
	<hr/>

Carried forward	\$60 92	\$12 23
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PUBLIC WORKS DEPARTMENT.

193

<i>Brought forward</i>	\$60 92	\$12 23	
1,665 square feet artificial stone sidewalks furnished and laid @ 15c.	249 75		
94 square feet artificial stone driveways furnished and laid @ 15c.	14 10		
		324 77	\$337 00
<i>Elmo street</i> , from Erie street to Greenwood street. (Work not started.)			
Engineering expense			\$1 10
<i>Evergreen street</i> (westerly side), from South Huntington avenue to Day street. (Work not started.)			
Engineering expense			\$0 75
<i>Florence street</i> , from Poplar street to Ashland street. (Work not started.)			
Engineering		\$17 00	
Advertising		93	
			\$17 93
<i>Falmouth street</i> (easterly side), at Christian Science Church Park.			
Engineering		\$10 28	
Inspection		33 24	
Engineering expense		1 20	
Advertising		2 25	
Amount paid to William J. Rafferty & Co., under contract:			
185 linear feet existing edge- stone reset @ 15c.	\$27 75		
2,812 square feet artificial stone sidewalks furnished and laid @ 19c.	534 28		
Extra Work — Repair wood block pavement in Falmouth street where edgestone was set.			
40 hours' labor @ 40c.	16 00		
Plus 15 per cent on \$16	2 40		
1 day, double team, @ \$6	6 00		
50 gallons pitch @ 10c.	5 00		
16 cubic feet sand @ 5c.	80		
		592 23	
		\$639 20	
Credit: 14,000 old sidewalk bricks		98 00	
			\$541 20
* <i>Gladstone street</i> , from Walley street to Upland street. Length, 1,829 linear feet. Edgestone reset, granite block gutters repaved and artificial stone sidewalks constructed.			
Engineering		\$67 01	
Inspection		122 50	
Engineering expense		2 37	
<i>Carried forward</i>		\$191 88	

* Done in connection with Bayswater street.

<i>Brought forward</i>		\$191 88
Edgestone		48 91
Labor, setting edgestone		6 00
Teaming		10 00
Amount paid Agostino DeStefano, under contract:		
Removing trees, bushes, etc.	\$15 00	
30 cubic yards water box excavation @ 75c.	22 50	
2,688 linear feet straight edgestone and corners set @ 12c.	322 56	
52 linear feet circular edgestone set @ 15c.	7 80	
1,470 linear feet crushed stone and concrete foundation furnished and placed @ 15c.	220 50	
120 square yards granite block paving hauled and laid @ 65c.	78 00	
370 square yards existing granite block paving relaid @ 60c.	222 00	
16,658 square feet artificial stone sidewalks furnished and laid @ 11c.	1,832 38	
440 square feet artificial stone driveways furnished and laid @ 14c.	61 60	
Extra work — Cut edgestone as directed:		
2 hours, stonecutter, @ 62½c.	1 25	
Plus 15 per cent on \$1.25,	19	
Extra work — Rehaul paving blocks and corners:		
23 hours' labor @ 25c.	5 75	
Plus 15 per cent on \$5.75,	86	
18 hours, double team, @ 75c.	13 50	
Extra work — Excavate gutters beyond limit of paving:		
81 hours' labor @ 25c.	20 25	
Plus 15 per cent on \$20.25	3 04	
8 hours, double team, @ 75c.	6 00	
Extra work — Remove edgestone already set and construct new driveway:		
8 hours, edgestone setter, @ 62½c.	5 00	
8 hours, helper, @ 31½c.	2 50	
Plus 15 per cent on \$7.50,	1 13	
2½ hours, double team, @ 75c.	1 88	
<i>Carried forward</i>	\$2,843 69	\$256 79

<i>Brought forward</i>	\$2,843 69	\$256 79
Extra work — Remove trees not shown on plan:		
6 trees removed @ \$40	240 00	
Extra work — Furnish extra gravel under edgestone:		
367 cubic feet gravel furnished @ 5c.	18 35	
Extra work — Excavate and set edgestone on Gladstone street where trees were removed:		
2 hours, foreman, @ 62½c.,	1 25	
3 hours, edgestone setter, @ 62½c.	1 88	
3 hours, helper, @ 31½c.	94	
17½ hours' labor @ 25c.	4 38	
Plus 15 per cent on \$8.45,	1 27	
1 hour, double team. @ 75c.	75	
	<u>\$3,112 51</u>	
Less amount paid in 1915,	<u>1,813 41</u>	
		<u>1,299 10</u>
		<u><u>\$1,555 89</u></u>

Harrison avenue (westerly side), from Kneeland street to Harvard street. Length, 285 linear feet. Edgestone reset and artificial stone sidewalks constructed.

Engineering	\$14 42
Inspection	23 01
Engineering expense	65
Advertising	4 20
Amount paid to John McCourt Company, under contract:	
5,195 square feet artificial stone sidewalks furnished and laid @ 18c.	\$935 10
29 square yards existing brick sidewalks relaid @ 30c.,	8 70
	<u>943 80</u>
	<u><u>\$986 08</u></u>

* *Harrison avenue* (easterly side), from Stoughton street to East Concord street. Length, 306 linear feet. Edgestone was reset and artificial stone sidewalks constructed.

Engineering	\$6 27
Inspection	14 00
Advertising	1 50
Amount paid to Jeremiah J. Sullivan, under contract:	
229 linear feet existing edgestone reset @ 12c.	\$27 48
2 square yards existing granite block paving relaid @ 40c.	80
	<u>\$28 28</u>
<i>Carried forward</i>	<u>\$21 77</u>

* Done in connection with East Concord and Stoughton streets.

<i>Brought forward</i>	\$28 28	\$21 77	
1,962 square feet artificial stone sidewalks furnished and laid @ 15c.	294 30		
Extra work — Break out asphalt and concrete base and reset coal holes.			
18 hours' labor @ 30c.	5 40		
2 hours, mason, @ 75c.	1 50		
2 hours, helper, @ 31¼c.	63		
Plus 15 per cent on \$7.53,	1 13		
		331 24	
		<u>\$353 01</u>	
Credit: 12,100 old sidewalk bricks		84 70	
			<u>\$268 31</u>
<i>Hastings street, from Centre street to Montview street. (Work not started.)</i>			
Engineering expense			<u>\$0 45</u>
<i>Haviland street, from Haviland terrace to 273 feet northerly. (Work not started.)</i>			
Engineering			<u>\$6 19</u>
<i>Holbrook street, from Centre street to Dane street. (Work not started.)</i>			
Engineering expense			<u>\$0 90</u>
<i>Holton street, from Everett street to Franklin street. (Work not started.)</i>			
Engineering expense			<u>\$0 50</u>
<i>Huntington avenue, at Christian Science Church Park.</i>			
Engineering		\$17 84	
Inspection		33 24	
Advertising		2 25	
Amount paid to William J. Rafferty & Co., under contract:			
180 linear feet existing edge- stone reset @ 15c.	\$27 00		
20 square yards existing brick sidewalks relaid @ 30c.,	6 00		
2,113 square feet artificial stone sidewalks furnished and laid @ 19c.	401 47		
		434 47	
		<u>\$487 80</u>	
Credit: 10,500 old bricks		73 50	
			<u>\$414 30</u>
<i>Magnolia square, from Magnolia street (Dorchester).</i>			
Inspection		\$9 53	
Engineering expense		15	
Amount paid John Kelly Company, under contract:			
752 square feet artificial stone sidewalks fur- nished and laid @ 14c.		105 28	
			<u>\$114 96</u>

Massachusetts avenue (easterly side), from Norway street to 67 feet northerly.

Engineering	\$19 60	
Inspection	3 50	
Engineering expense	65	
Advertising	93	
Amount paid to V. Grande, under contract: 1,016 square feet artificial stone sidewalks furnished and laid @ 24c.	\$243 84	
Less 15 per cent retained,	36 58	
	<hr/>	207 26
		<hr/>
	\$231 94	
Credit: 3,000 old sidewalk bricks	21 00	
	<hr/>	\$210 94

Medfield street, from Audubon road to St. Mary's street. (Work not started.)

Engineering	\$6 02	
Engineering expense	40	
	<hr/>	\$6 42

Norfolk avenue (westerly side), from Shirley street to Burrell street. (Work not started.)

Engineering	\$29 20
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Norway street (northerly side), from Massachusetts avenue to 113 feet easterly and southerly side at Christian Science Church Park.

Engineering	\$26 97	
Inspection	11 81	
Engineering expense	90	
Advertising	93	
	<hr/>	\$40 61

Amount paid to William J. Rafferty & Company, under contract:

96 linear feet existing edgestone reset @ 15c	\$14 40	
29 square yards existing granite block paving relaid @ 30c.,	8 70	
721 square feet artificial stone sidewalks furnished and laid @ 19c.	136 99	
	<hr/>	160 09

Amount paid V. Grande, under contract:

662 square feet artificial stone sidewalks furnished and laid @ 24c.	\$158 88	
Less 15 per cent retained	23 83	
	<hr/>	135 05

	\$335 75	
Credit: 5,800 old sidewalk bricks,	\$40 60	
180 old paving blocks	3 60	
	<hr/>	44 20

\$291 55

Penfield street, from Belgrade avenue to Birch street. (Work done in 1915.)

Engineering expense \$0 20

Amount paid Martino DeMatteo, under contract:

9,742 square feet artificial stone sidewalks furnished and laid @ 11½c. \$1,120 33

339 square feet artificial stone driveways furnished and laid @ \$1 339 00

Extra work — Excavate rock:

9 days' labor @ \$2.25 20 25

Plus 15 per cent on \$20.25 3 04

\$1,482 62

Less amount paid in 1915 1,240 43

242 19

\$242 39

Poplar street, from Sycamore street to Brown avenue and Hilburn street. Length, 1,766 linear feet. Area, 7,435 square yards. Edgestone set and reset, granite block paving relaid, flagging crosswalks laid and artificial stone sidewalks constructed. (Unfinished work from 1915.)

Engineering \$98 17

Inspection 82 51

Engineering expense 1 85

Edgestone, 364 feet straight, 43 feet 8 inches circular and 2 large corners 318 60

Amount paid John Kelly Company, under contract:

Removing trees, bushes, etc. \$150 00

20 cubic yards rock excavation @ \$2 40 00

1,565 linear feet straight edgestone and corners hauled and set @ 16c., 250 40

208 linear feet circular edgestone set @ 10c. 20 80

63 linear feet existing edgestone reset @ 10c. 6 30

802 linear feet crushed stone and concrete foundation furnished and placed @ 10c. 80 20

12 square yards existing granite block paving relaid @ 25c. 3 00

2 square yards existing flagging crosswalks relaid @ 50c. 1 00

15,252 square feet artificial stone sidewalks furnished and laid @ 13c. 1,982 76

289 square feet artificial stone driveways furnished and laid @ 13c. 37 57

1 cover reset @ \$3 3 00

Carried forward \$2,575 03

\$501 13

<i>Brought forward</i>	\$2,575 03	\$501 13
Extra work — Furnish and set edgestone as directed:		
641 feet 3-inch straight edgestone furnished and set @ 98c.	628 43	
Extra work — Remove edgestone already set and construct drive-ways as directed:		
½ day, foreman, @ \$5	2 50	
½ day, edgestone setter, @ \$5	2 50	
1½ days' labor @ \$2	3 00	
Plus 15 per cent on \$8	1 20	
2 days, double team, @ \$6,	12 00	
Extra work — Remove stumps not shown on plan:		
1 day, foreman, @ \$5	5 00	
8½ days' labor @ \$2	17 00	
½ day's labor @ \$2.80	1 40	
Plus 15 per cent on \$23.40	3 51	
½ day, steam roller, @ \$15,	7 50	
½ day, double team, @ \$6	3 00	
Extra work — Furnish lights at night as directed:		
53 nights, lights furnished @ \$2	106 00	
Extra work—Grade roadway and sidewalks as directed:		
19½ days, foreman, @ \$5	97 50	
148 days' labor @ \$2	296 00	
18½ days' labor @ \$2.80	51 80	
Plus 15 per cent on \$445.30	66 80	
45½ days, double team, @ \$6,	272 50	
2 cords wood @ \$7.50	15 00	
43 gallons oil @ 11c.	4 73	
Sharpening tools	8 60	
Extra work — Extend the hauling and setting of straight edgestone and corners and setting circular edgestone and constructing artificial stone sidewalks to about 250 feet south of Brown avenue on east side and to about 200 feet south of Hilburn street on west side:		
408 linear feet straight edgestone and corners hauled and set @ 16c.,	65 28	
78 linear feet circular edgestone set @ 10c.	7 80	
<i>Carried forward</i>	<u>\$4,254 08</u>	<u>\$501 13</u>

<i>Brought forward</i>	\$4,254 08	\$501 13
223 linear feet crushed stone and concrete founda- tion furnished and placed @ 10c.	22 30	
2,967 square feet artificial stone sidewalks furnished and laid @ 13c.	385 71	
8 cubic yards rock excava- tion @ \$2	16 00	
	<hr/>	
	\$4,677 09	
Less amount paid in 1915,	3,592 07	
	<hr/>	
		1,085 02
		<hr/>
		<u>\$1,586 15</u>

Poplar street, from Washington street to Sycamore street. Length, 1,107 linear feet. Edgestone set and reset, flagging crosswalks laid, granite block gutters relaid and artificial stone sidewalks constructed.

Engineering	\$78 35
Inspection	52 50
Engineering expense	40
Advertising	4 20
Flagging, 16 feet	12 80
Edgestone, 38 feet 11 inches circular, 2 large and 8 small corners	86 64
	<hr/>
	\$234 89
Credit: Old granite blocks	\$20 00
Old granite edgestone	25 23
	<hr/>
	45 23
	<hr/>
	\$189 66

Amount paid to James Doherty, under contract:

Removing trees, bushes, etc.	\$0 01
2 cubic yards rock excava- tion @ \$5	10 00
65 linear feet circular edge- stone set @ 15c.	9 75
370 linear feet existing edge- stone reset @ 13c.	48 10
127 square yards existing gran- ite block paving relaid @ 37c.	46 99
4 square yards existing flagging crosswalks re- laid @ 40c.	1 60
11,023 square feet artificial stone sidewalks furnished and laid @ 13c.	1,432 99
481 square feet artificial stone driveways furnished and laid @ 13c.	62 53
Extra work — Furnish stonecutter to cut edge- stone on account of new driveway:	
2½ days, stonecutter, @ \$5,	11 25
	<hr/>
<i>Carried forward</i>	\$1,623 22
	<hr/>
	\$189 66

<i>Brought forward</i>	\$1,623 22	\$189 66	
Plus 15 per cent on \$11.25	1 69		
	<hr/>	1,624 91	
			<u>\$1,814 57</u>

Quincy street, from Coleman street to Barry street. (Work done in 1915.)

Engineering expense	<u>\$0 10</u>
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Saratoga street, from Butler avenue to Washburn avenue. Length, 1,328 linear feet. Edgestone set, flagging crosswalks laid and artificial stone sidewalks constructed.

Engineering	\$125 16		
Inspection	217 59		
Engineering expense	4 75		
Advertising	4 20		
Teaming	2 50		
Edgestone, 79 feet 2 inches circular, 6 small corners and 1,828 feet 6 inches straight .	1,620 72		
Amount paid Agostino DeStefano, under con- tract:			
44 cubic yards water box ex- cavation @ 50c.	\$22 00		
1,871 linear feet straight edge- stone and corners hauled and set @ 11c.,	205 81		
81 linear feet circular edge- stone set @ 12c.	9 72		
66 linear feet existing edge- stone reset @ 12c.	7 92		
12 square yards existing granite block paving relaid @ 30c.	3 60		
11 square yards existing flagging crosswalks re- laid @ 50c.	5 50		
14,567 square feet artificial stone sidewalks fur- nished and laid @ 12c.,	1,748 04		
196 square feet artificial stone sidewalks fur- nished and laid @ 12c.,	23 52		
	<hr/>	2,026 11	
			<u>\$4,001 03</u>

Scotia street, from St. Cecilia street to Dalton street. (Work not started.)

Engineering expense	\$37 45		
Advertising	94		
	<hr/>		<u>\$38 39</u>

Shirley street (south side), from Clifton street to Norfolk avenue. (Work not started.)

Engineering	\$35 76		
Inspection	12 50		
Engineering expense	35		
Advertising	93		
	<hr/>		<u>\$49 54</u>

St. Cecilia street, from Boylston street to Belvidere street. (Work not started.)

Engineering	\$31 75	
Engineering expense	40	
Advertising	93	
	<hr/>	\$33 08

* *Stoughton street* (southerly side), from Harrison avenue to 266 feet easterly. Length, 256 linear feet. Edgestone was reset, granite block gutters repaved and artificial stone sidewalks constructed.

Engineering	\$15 59	
Inspection	56 00	
Engineering expense	50	
Advertising	1 50	
Blocks	4 50	
	<hr/>	\$78 09
Credit: 5,000 old sidewalk bricks	35 00	
	<hr/>	\$43 09

Amount paid Jeremiah J. Sullivan, under contract:

59 linear feet existing edge-stone reset @ 12c.	\$7 08	
23 square yards granite block paving hauled and laid @ 80c.	18 40	
6 square yards existing brick sidewalks relaid @ \$1	6 00	
1,988 square feet artificial stone sidewalks furnished and laid @ 15c.,	298 20	
116 square feet artificial stone driveways furnished and laid @ 15c.,	17 40	
	<hr/>	347 08
		<hr/> \$390 17

Stoughton street (south side), from Stoughton place to No. 15. (Work not started.)

Advertising	<hr/> \$0 93
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Tremont street (east side), from Dover street to 89 feet northerly.

Engineering	\$20 81	
Inspection	14 25	
Engineering expense	35	
Advertising	93	
	<hr/>	\$36 34
Credit: 3,000 old sidewalk bricks	21 00	
	<hr/>	\$15 34

Amount paid to V. Grande, under contract:

97 linear feet existing edge-stone reset @ 25c.	\$24 25	
<i>Carried forward</i>	<hr/> \$24 25	<hr/> \$15 34

* Done in connection with East Concord street and Harrison avenue.

<i>Brought forward</i>	\$24 25	\$15 34	
20 square yards existing granite block paving relaid, gravel joints, @ \$1	20 00		
10 square yards existing brick sidewalks relaid @ 60c.,	6 00		
1,024 square feet artificial stone sidewalks furnished and laid @ 24c.	245 76		
	<hr/>		
	\$296 01		
Less 15 per cent retained,	44 40		
	<hr/>		
		251 61	
		<hr/>	\$266 95
			<hr/>

Walk Hill street (west side), from Wachusett street to Bourne street.
(Work done in 1915.)

Engineering expense	\$0 20
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Washington street (Brighton), southerly side, from Tip Top street to Newton line, is about 1,325 linear feet in length. Artificial stone sidewalks constructed.

Engineering	\$91 41	
Inspection	100 81	
Engineering expense	1 60	
Advertising	4 20	
Amount paid Agostino DeStefano, under contract:		
9,156 square feet artificial stone sidewalks furnished and laid @ 12c.	\$1,098 72	
593 square feet artificial stone driveways furnished and laid @ 15c.	88 95	
Extra work — Cut away embankment as directed:		
15 hours, foreman, @ 50c.	7 50	
100 hours' labor @ 31½c.	31 25	
Plus 15 per cent on \$38.75,	5 81	
15 hours, double team, @ 75c.,	11 25	
	<hr/>	
		1,243 48
		<hr/>
		\$1,441 50
		<hr/>

* *Water street*, from Kilby street 202 feet easterly.

Engineering	\$3 99	
Inspection	11 00	
	<hr/>	
		\$14 99
		<hr/>

West Broadway, from Dorchester avenue to Dorchester street. (Work done in 1915.)

Engineering expense	\$9 50
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* See "Reconstructing and Repairing Streets by Contract."

RECONSTRUCTING AND REPAIRING STREETS BY CONTRACT.

Artificial stone sidewalks:

Rebates allowed to contractors	\$12,776 84	
Repairs made	1,240 71	
New walks constructed	489 91	
	<hr/>	\$14,507 46

Asphalt and bitulithic pavements repaired:

Engineering	\$1,288 21	
Inspection	537 50	
Chemists' wages	213 29	
Engineering expense	29 80	
Amount paid to Central Construction Com- pany, under contract:		
Asphalt repairs	32,263 67	
Bitulithic repairs	1,632 19	
	<hr/>	\$35,964 66

Albany street, from Dover street to Northampton street. The contractor reset the edgestone, relaid the crosswalks, relaid the brick sidewalks and furnished and laid granite block pavement on a concrete base. (Work unfinished.)

Engineering	\$615 45	
Inspection	418 89	
Engineering expense	16 80	
Advertising	2 05	
Bricks, 21,700 sidewalk	184 90	
Edgestone, 267 feet 5 inches straight and 27 feet 8 inches circular	538 07	
Flagging, 108 feet 5 inches granite	86 74	
Lumber	13 32	
Labor, making templets	16 00	
Labor, handling stock	5 63	
	<hr/>	\$1,897 85

Amount paid B. E. Grant, under contract:

40 cubic yards filling fur- nished @ 5c.	\$2 00	
265 linear feet straight edge- stone and corners hauled and set @ 20c.,	53 00	
170 linear feet circular edge- stone set @ 16c.	27 20	
4,380 linear feet existing edge- stone reset @ 12c.	525 60	
2,425 cubic yards concrete base furnished and laid @ \$5.05	12,246 25	
456 square yards existing granite block paving relaid, gravel joints, @ 50c.	228 00	
3,500 square yards granite block pavement furnished and laid, grout joints (unfinished), @ 75c.	2,625 00	
	<hr/>	
<i>Carried forward</i>	\$15,707 05	\$1,897 85

<i>Brought forward</i>	\$15,707 05	\$1,897 85	
11,642 square yards granite block pavement fur- nished and laid, grout joints, @ \$3.28	38,185 76		
276 square yards existing granite block paving relaid, grout joints, @ 85c.	234 60		
23 square yards flagging crosswalks hauled and laid, grout joints, @ 85c.	19 55		
86 square yards existing flagging crosswalks re- laid, grout joints, @ 80c.	68 80		
765 square yards brick side- walks laid @ 35c.	267 75		
590 square yards existing brick sidewalks relaid @ 28c.	165 20		
17,500 square feet artificial stone sidewalks furnished and laid (unfinished) @ 12c.	2,100 00		
	<u>\$56,748 71</u>		
Less 5 per cent retained,	2,837 45		
		<u>53,911 26</u>	
		\$55,809 11	
Credit: 190,960 old granite blocks		3,819 20	
		<u>\$51,989 91</u>	

Albany street, from Kneeland street to Boston & Albany Railroad bridge.
(Work not started.)

Engineering	\$73 23	
Engineering expense	60	
Advertising	2 05	
		<u>\$75 88</u>

Appleton street, from Berkeley street to Columbus avenue. Length, 1,400
linear feet. Area, 6,562 square yards. The contractor reset the edge-
stone, relaid the brick sidewalks, furnished and laid brick block gutters
on a concrete base and laid an asphalt wearing surface on the existing
macadam base.

Engineering	\$232 91	
Inspection	81 00	
Engineering expense	4 60	
Advertising	1 32	
Printing	78	
Bricks, 9,500 sidewalk	66 50	
Edgestone, 37 feet 9½ inches circular	47 41	
Amount paid Warren Brothers Company, under contract:		
38 linear feet circular edge- stone set @ 17c.	\$6 46	
1,538 linear feet existing edge- stone reset @ 15c.	230 70	
	<u>\$237 16</u>	
<i>Carried forward</i>	\$434 52	

<i>Brought forward</i>	\$237 16	\$434 52
245 square yards existing granite block paving relaid, gravel joints, @ 53c.	129 85	
59 square yards existing flagging crosswalks relaid, gravel joints, @ 50c.	29 50	
5,471 square yards bituminous concrete binder and asphalt wearing surface furnished and laid on macadam surface @ \$1.21	6,619 91	
787 square yards concrete base and brick block pavement furnished and laid @ \$2.83	2,227 21	
1,257 square yards existing brick sidewalks relaid @ 30c.	377 10	
14 covers reset @ \$3	42 00	
Extra work — Relay brick sidewalks with herringbone work:		
325 square yards herringbone sidewalk relaid @ 60c.	195 00	
Extra work — Furnish stonecutter to trim edgestone:		
10 hours, stonecutter, @ 62½c.	6 25	
Plus 15 per cent on \$6.25,	94	
Extra work — Haul sidewalk brick from Codman street yard:		
45 hours, double team, @ 75c.,	33 75	
	\$9,898 67	
Less 5 per cent retained	494 93	
		9,403 74
		\$9,838 26
Credit: Old blocks, 40,025	\$800 50	
Old flagging	20 00	
Old edgestone	3 60	
		824 10
		<u>\$9,014 16</u>

Batterymarch street, from Franklin street to Broad street. Length, 287 linear feet. Area, 1,108 square yards. The contractor reset the edgestone, relaid the brick sidewalks and furnished and laid a granite block pavement on a concrete base with grout joints.

Engineering	\$121 52
Inspection	129 50
Engineering expense	45
Advertising	2 04
Teaming	2 50
Labor, handling stock	67
<i>Carried forward</i>	<u>\$256 68</u>

<i>Brought forward</i>		\$256 68	
Edgestone, 18 feet circular, 21 corners		31 03	
Flagging, 38 feet 1 inch granite		30 47	
Bricks, 8,000 sidewalk		100 00	
Lumber		5 66	
Labor, making templets		8 25	
Amount paid B. E. Grant, under contract:			
19 linear feet circular edge-stone set @ 16c.	\$3 04		
347 linear feet existing edge-stone reset @ 12c.	41 64		
181.3 cubic yards concrete base furnished and laid @ \$5.05.	915 57		
37 square yards existing granite block paving relaid, gravel joints, @ 50c.	18 50		
1,051 square yards granite block paving furnished and laid, grout joints, @ \$3.28	3,447 28		
8 square yards flagging crosswalks hauled and laid, grout joints, @ 85c.,	6 80		
49 square yards existing flagging crosswalks relaid, grout joints, @ 80c.,	39 20		
250 square yards existing brick sidewalks relaid @ 28c.	70 00		
	<u>\$4,542 03</u>		
Less 5 per cent retained	227 10		
		<u>4,314 93</u>	
		\$4,747 02	
Credit: Old blocks, 30,010	\$600 20		
Old bricks, 2,825	19 75		
	<u>619 95</u>		
		<u>4,127 07</u>	
<i>Beach street, from Harrison avenue to Atlantic avenue.</i>	(Work not started.)		
Engineering	\$15 11		
Engineering expense	10		
Advertising	2 04		
		<u>\$17 25</u>	
<i>Blossom street, from Allen street to Fruit street.</i>	(Work not started.)		
Engineering	\$51 00		
Printing	78		
Advertising	1 32		
		<u>\$53 10</u>	
<i>Boylston street, from Tremont street to Washington street.</i>	(Work not started.)		
Engineering	\$66 18		
Engineering expense	75		
Advertising	1 32		
		<u>\$68 25</u>	

Canal street, from Haymarket square to Causeway street. The work done this year consisted of removing the existing granite block. (Work unfinished.)

Engineering	\$167 55
Inspection	42 25
Engineering expense	15
Advertising	2 04
Labor, department force, repairing walk	63 50
	<hr/>
	\$275 49
Credit: Old flagging	9 36
	<hr/>
	\$266 13

Amount paid to B. E. Grant, under contract:			
Extra work — Omit the relaying of granite block paving and substitute the furnishing and laying of new granite block:			
1,300 square yards granite block paving furnished and laid, grout joints (unfinished), @ 35c.	\$455 00		
Less 5 per cent retained	21 75		
	<hr/>	432 25	
		<hr/>	\$698 38

Chandler street, from Berkeley street to Columbus avenue. Length, 1,105 linear feet. Area, 5,016 square yards. The contractor set the edgestone, relaid the brick sidewalks, paved the gutters with brick block on a concrete base and laid an asphalt wearing surface on the existing macadam roadway.

Engineering	\$191 25	
Inspection	53 00	
Engineering expense	3 10	
Advertising	1 32	
Bricks, 15,350 second-hand	107 45	
Printing	78	
Edgestone, 28 feet 11 inches circular	35 60	
Amount paid to Warren Brothers Company, under contract:		
29 linear feet circular edge- stone set @ 17c.	\$4 93	
1,954 linear feet existing edge- stone reset @ 15c.	293 10	
28 square yards existing granite block paving relaid, gravel joints, @ 53c.	14 84	-
19 square yards existing flagging crosswalks re- laid, gravel joints, @ 50c.	9 50	
4,379 square yards bituminous concrete binder and as- phalt wearing surface furnished and laid, mac- adam foundation, @ \$1.21	5,298 59	
Carried forward	\$5,620 96	\$392 50

<i>Brought forward</i>	\$5,620 96	\$392 50
590 square yards concrete base and brick block paving furnished and laid @ \$2.83	1,669 70	
2,105 square yards existing brick sidewalks relaid @ 30c.	631 50	
16 covers reset @ \$3	48 00	
Extra work — Relay brick sidewalks with herring- bone work:		
28 square yards herringbone sidewalks relaid @ 60c.,	16 80	
	<u>\$7,986 96</u>	
Less 5 per cent retained	399 34	
		<u>7,587 62</u>
		\$7,980 12
Credit: Blocks, 25,550 old gran- ite	\$511 00	
Flagging, old North River	122 84	
		<u>633 84</u>
		<u><u>\$7,346 28</u></u>
<i>Clinton street</i> , from Merchants row to Commercial street. (Work not started.)		
Engineering		\$88 85
Advertising		2 04
		<u>\$90 89</u>
<i>Columbia road</i> , from Edward Everett square to Dudley street. Length, 1,460 linear feet. Area, 4,867 square yards. The contractor reset part of the edgestone and relaid the brick sidewalks. The roadway as constructed is of granite block pavement with grout joints on a concrete base.		
Engineering		\$409 64
Inspection		297 45
Engineering expense		13 30
Advertising		2 05
Labor, making templates		5 50
Labor, handling stock		2 87
Lumber		1 80
Bricks, 11,500 second-hand		97 00
Edgestone, 165 feet straight, 2 large and 2 small corners		134 80
Amount paid to B. E. Grant, under contract:		
170 linear feet straight edge- stone and corners hauled and set @ 20c.	\$34 00	
500 linear feet existing edge- stone reset @ 12c.	60 00	
500 cubic yards concrete base furnished and laid @ \$5.05	2,525 00	
22 square yards existing gran- ite block paving relaid, gravel joints, @ 50c.	11 00	
	<u>\$2,630 00</u>	
<i>Carried forward</i>		<u>\$964 41</u>

<i>Brought forward</i>	\$2,630 00	\$964 41
400 square yards existing granite block paving relaid, grout joints, @ 85c.	340 00	
4,425 square yards granite block paving furnished and laid, grout joints, @ \$3.30	14,602 50	
26 square yards existing flagging crosswalks relaid, gravel joints, @ 50c.	13 00	
2 square yards flagging crosswalks hauled and laid, grout joints, @ 85c.	1 70	
421 square yards existing brick sidewalks relaid @ 28c.	117 88	
3 covers reset @ \$3	9 00	
Extra work — Remove existing Telford base and furnish and lay a 4-inch concrete base:		
154 hours, foreman, @ 75c.	115 50	
3,163 hours' labor @ 30c	948 90	
Plus 15 per cent on \$1,064.40	159 66	
702 hours, double team, @ 75c.	526 50	
8 hours, steam roller, @ \$1.87½	15 00	
5 hours, auto truck, @ \$2.50,	12 50	
	<u>\$19,492 14</u>	
Less 5 per cent retained	974 61	
		<u>18,517 53</u>
		\$19,481 94
Credit: Blocks, 12,980 old granite	\$259 60	
Flagging, old North River	23 53	
		<u>283 13</u>
		<u><u>\$19,198 81</u></u>
<i>Cross street, from Commercial street to Haymarket square. (Work not started.)</i>		
Engineering		\$156 28
Advertising		2 04
		<u>\$158 32</u>
<i>Dearborn street, from Albany street to Dudley street. The contractor reset the edgestone, furnished and laid brick block gutters and furnished and laid an asphalt pavement on a concrete base (unfinished).</i>		
Engineering		\$211 61
Inspection		46 75
Engineering expense		4 75
Advertising		1 32
Edgestone, 5 feet 1 inch straight and 1 small corner		7 31
Labor, handling stock		13
		<u>\$271 87</u>
<i>Carried forward</i>		

<i>Brought forward</i>		\$271 87	
Amount paid to Warren Brothers Company, under contract:			
7 linear feet straight edge- stone hauled and set @ 20c.	\$1 40		
340 linear feet existing edge- stone reset @ 15c.	51 00		
15 square yards existing gran- ite block paving relaid, gravel joints, @ 53c.	7 95		
1,160 square yards concrete base, bituminous concrete bin- der and asphalt wearing surface furnished and laid @ \$2.09	2,424 40		
190 square yards concrete base, brick block pave- ment furnished and laid @ \$2.83	537 70		
	<hr/>		
	\$3,022 45		
Less 5 per cent retained	151 12		
	<hr/>		
		2,871 33	
		<hr/>	
		\$3,143 20	
		60 24	
		<hr/>	
Credit: Flagging, old North River			\$3,082 96

Devonshire street, from Adams square to Water street. Length, 696 linear feet. Area, 2,032 square yards. The contractor did the excavating, reset the edgestone, relaid the brick sidewalks and furnished and laid a wood block pavement on a concrete base.

Engineering	\$256 19	
Inspection	149 20	
Engineering expense	65	
Advertising	2 04	
Lumber, templates	4 99	
Labor, making templates	13 00	
Bricks, 3,500 sidewalk	35 50	
Teaming	2 50	
Amount paid B. E. Grant, under contract:		
192 linear feet existing edge- stone reset @ 12c.	\$23 04	
313½ cubic yards concrete base furnished and laid @ \$5.05	1,583 18	
57 square yards existing granite block paving re- laid, gravel joints, @ 50c.	28 50	
119 square yards granite block paving furnished and laid, asphalt joints, @ \$3.40	404 60	
10 square yards existing flag- ging crosswalks relaid, gravel joints, @ 50c.	5 00	
120 square yards existing brick sidewalks relaid at 28c.,	36 12	
	<hr/>	
<i>Carried forward</i>	\$2,080 44	\$464 07

<i>Brought forward</i>	\$2,080 44	\$464 07	
Extra work — Omit granite block pavement and substitute wood block pavement:			
1,913 square yards wood block pavement furnished and laid @ \$3.28	6,274 64		
	<u>\$8,355 08</u>		
Less 5 per cent retained	417 75		
		<u>7,937 33</u>	
		\$8,401 40	
Credit: Bricks, 1,000 old sidewalk	\$7 00		
Flagging, 306 feet old granite	122 52		
		<u>129 52</u>	
			<u>\$8,271 88</u>

Dorchester avenue, from Savin Hill avenue to Freeport street. (Work started, but no payment made to contractor.)

Engineering	\$191 41	
Inspection	83 00	
Engineering expense	4 95	
Labor, making templets	5 50	
Labor, stonecutter	42 00	
Blocks: Old granite, 15,900	318 00	
Teaming	1 25	
Advertising	2 05	
Labor, sidewalk repairs	3 00	
		<u>\$651 16</u>

Fruit street, from Charles street to Blossom street. (Work not started.)

Engineering	\$96 04	
Engineering expense	65	
Advertising	1 30	
Printing	77	
		<u>\$98 76</u>

Fulton street, from Blackstone street to Richmond street. (Work not started.)

Engineering	\$62 26	
Advertising	2 04	
		<u>\$64 30</u>

Harrison avenue, from Kneeland street to Dover street. (Work not started.)

Engineering	\$428 93	
Engineering expense	2 70	
Advertising	2 04	
		<u>\$433 67</u>

Haymarket square, intersection of Washington, Cross, Canal, Blackstone, Sudbury and other streets. (Work not started.)

Engineering	\$174 93	
Advertising	2 04	
		<u>\$176 97</u>

Lincoln street, from Essex street to Beach street. (Work not started.)

Engineering	\$71 92	
Advertising	2 04	
	<hr/>	<u>\$73 96</u>

McKinley square. (Work not started.)

Engineering	\$165 78	
Advertising	2 05	
	<hr/>	<u>\$167 83</u>

Mercantile street, from South Market street to Richmond street. (Work not started.)

Engineering	\$93 29	
Advertising	2 05	
	<hr/>	<u>\$95 34</u>

North Anderson street, from Parkman street to Fruit street. The contractor reset the edgestone, relaid the brick sidewalks, furnished and laid brick block gutters on a concrete base and furnished and laid asphalt wearing surface on a concrete base. (Work unfinished.)

Engineering	\$29 70
Inspection	30 25
Engineering expense	25
Advertising	1 30
Printing	77
Edgestone	19 74
Teaming	3 75
Lumber	4 48
Labor, making templets	6 00

Amount paid to Warren Brothers Company,
under contract:

22 linear feet circular edgestone
set @ 17c. \$3 74

12 linear feet existing edgestone
reset @ 15c. 1 80

3 square yards existing granite
block paving relaid,
gravel joints, @ 53c. 1 59

171 square yards concrete base,
bituminous concrete
binder and asphalt wear-
ing surface furnished and
laid @ \$2.09 357 39

43 square yards concrete base
and brick block pavement
furnished and laid @
\$2.83 121 69

\$486 21

Less 5 per cent retained 24 31

461 90

\$558 14

North Grove street, from Cambridge street to Fruit street. (Work not started.)

Engineering	\$88 15	
Engineering expense	75	
Advertising	1 30	
Printing	77	
	<hr/>	<u>\$90 97</u>

Parkman street, from North Anderson street to North Grove street. The contractor reset the edgestone, furnished and laid brick block gutters on a concrete base and furnished and laid an asphalt pavement on a concrete base.

Engineering		\$48 85	
Inspection		30 25	
Engineering expense		45	
Advertising		1 30	
Lumber		4 20	
Teaming		1 25	
Edgestone		24 94	
Labor, making templets		6 00	
Printing		77	
Amount paid Warren Brothers Company, under contract:			
20 linear feet circular edge-stone set @ 17c.	\$3 40		
80 linear feet existing edge-stone reset @ 15c.	12 00		
3 square yards existing granite block pavement relaid, gravel joints, @ 53c.,	1 59		
4 square yards existing granite block pavement relaid, grout joints, including concrete base, @ \$2,	8 00		
3 square yards existing flagging crosswalks relaid, gravel joints, @ 50c.	1 50		
6 square yards existing granite flagging crosswalks relaid, grout joints, including concrete base, @ \$1.80	10 80		
376 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$2.09	785 84		
19 square yards bituminous concrete binder and asphalt wearing surface furnished and laid on macadam foundation @ \$1.21,	22 99		
100 square yards concrete base and brick block pavement furnished and laid @ \$2.83	283 00		
1 cover reset @ \$3	3 00		
	\$1,132 12		
Less 5 per cent retained	56 62		
		1,075 50	
			<u>\$1,193 51</u>

School street, from Washington street to Tremont street. Length, 570 linear feet. Area, 1,385 square yards. The edgestone, crosswalks and sidewalks were regulated where necessary. The roadway as constructed is of granite block pavement on a concrete base.

Engineering	\$164 44
Inspection	88 00
Carried forward	<u>\$252 44</u>

<i>Brought forward</i>			\$252 44	
Engineering expense			30	
Advertising			2 05	
Labor, making templets			11 10	
Lumber			3 11	
Teaming			2 50	
Amount paid B. E. Grant, under contract:				
75 linear feet existing edge-stone reset @ 12c.		\$9 00		
219.7 cubic yards concrete base furnished and laid @ \$5.05		1,109 49		
1,331 square yards granite block paving furnished and laid, grout joints, @ \$3.28		4,365 68		
36 square yards existing granite block paving relaid, grout joints, @ 85c.		30 60		
18 square yards existing flagging crosswalks relaid, grout joints, @80c.,		14 40		
		<u>\$5,529 17</u>		
Less 5 per cent retained		276 45		
			<u>5,252 72</u>	
				<u><u>\$5,524 22</u></u>

Wachusett street, from Weld Hill street to Barlow street. Length, 399 linear feet. The street was excavated and graded.

Amount paid John Landis, under contract:

494 cubic yards earth excavation @ 65c.	\$321 10	
145 cubic yards rock excavation @ \$3	435 00	
	<u>\$756 10</u>	

Washington street, from Haymarket square to Elm street. (Work not started.)

Engineering	\$137 67	
Advertising	2 05	
	<u>\$139 72</u>	

* *Water street*, from Kilby street 202 feet easterly. Artificial stone walk laid and repaired.

Amount paid to C. J. Jacobs & Co., extra work, breaking out slabs:

489 square feet artificial stone walks @ 20c.,	\$97 80	
224 square feet artificial stone walks @ 60c.,	134 40	
484 square feet artificial stone walks @ 25c.,	121 00	
617 square feet artificial stone walks @ 5c.,	30 85	
	<u>\$384 05</u>	

West Broadway, from Dorchester avenue across E street. (Work not started.)

Engineering	\$131 79	
Engineering expense	30	
Advertising	1 30	
Printing	77	
	<u>\$134 16</u>	

* See granolithic sidewalks.

West Canton street, from Appleton street to Tremont street. Length, 900 linear feet. Area, 3,306 square yards. This was a macadam street with granite block gutters; the latter were replaced with brick block gutters 30 inches wide laid on a 6-inch concrete base. The roadway of the street was constructed with asphalt wearing surface on the existing macadam base.

Engineering		\$211 47
Inspection		93 02
Engineering expense		4 50
Advertising		1 30
Bricks, 8,150 second-hand sidewalk		57 05
Blocks, 4,325 wood blocks		211 93
Printing		77
Edgestone, 37 feet circular		44 63
Teaming		27 80
Amount paid to Warren Brothers Company, under contract:		
35 linear feet circular edge- stone set @ 17c.	\$5 95	
1,500 linear feet existing edge- stone reset @ 15c.	225 00	
112 square yards existing gran- ite block paving relaid, gravel joints, @ 53c.	59 36	
65 square yards existing flag- ging crosswalks relaid, gravel joints, @ 50c.	32 50	
2,709 square yards bituminous concrete binder and asphalt wearing surface furnished and laid on macadam foundation @ \$1.21	3,277 89	
465 square yards concrete base, brick block pavement furnished and laid @ \$2.83	1,315 95	
1,300 square yards existing brick sidewalks relaid @ 30c.,	390 00	
12 covers reset @ \$3	36 00	
Extra work — Relay brick sidewalks with herring- bone work:		
62 square yards herringbone sidewalk relaid @ 60c.,	37 20	
Extra work — Relay wood block pavement at inter- section of West Canton street and Warren avenue:		
5 cubic yards concrete base furnished and laid @ \$6.50	32 50	
314 square yards wood block pavement relaid @ 60c.,	188 40	
	<hr/>	
	\$5,600 75	
Less 5 per cent retained	280 04	
	<hr/>	
		5,320 71
<i>Carried forward</i>		<hr/>
		\$5,973 18

<i>Brought forward</i>		\$5,973 18	
Credit: Blocks, 22,104 old granite	\$442 08		
Flagging, 247 feet old North River	98 82		
		540 90	
			<u>\$5,432 28</u>

STREETS CONSTRUCTED OR IN PROCESS OF CONSTRUCTION UNDER CHAPTER 393 OF THE ACTS OF 1906, AND THE COST CHARGED TO THE APPROPRIATION FOR HIGHWAYS, MAKING OF.

Ainsworth street footway, from Tyndale street to Belgrade avenue. Constructed footway under railroad tracks.

Engineering	\$579 92	
Inspection	422 50	
Engineering expense	1 25	
Advertising	9 00	
Printing	43 29	
Amount paid to Charles J. Jacobs Company, under contract:		
2½ cubic yards rock excavation		
@ \$4	\$10 00	
Contract price	647 00	
Contract price	5,173 75	
Extra work under order dated July 21, 1916 —		
Excavation under railroad tracks:		
3 days, foreman, @ \$5	15 00	
189 hours, men, @ 37½c.	70 88	
6 days, double team, @ \$6	36 00	
Extra work under order dated August 21, 1916:		
6 hours, cutting keyways, @ 37½c.	2 25	
2 cubic yards concrete side walls, Tyndale street approach, @ \$15	30 00	
2 iron posts for railings * @ \$3.50	7 00	
Extra work under order dated September 27, 1916 — Overhanging coping on side walls:		
300 linear feet corner molding @ 2c.	6 00	
3 days, carpenter work, @ \$4.80	14 40	
2 days, finishers' work, @ \$5,	10 00	
8 cubic feet extra concrete @ 65c.	5 20	
Add 15 per cent on labor (\$112.53)	16 88	
	\$6,044 36	
Less 5 per cent retained	302 22	
		5,742 14
		<u>\$6,798 10</u>

* Per verbal agreement.

Alexander street, from Bird street about 527 feet northerly. Length, 527 linear feet. Area, 1,588 square yards. The contractor set the edgestone and constructed granite block roadway on a concrete base. Artificial stone sidewalks are to be constructed. (Work unfinished.)

Engineering	\$269 08	
Inspection	234 95	
Engineering expense	6 15	
Advertising	8 70	
Lumber	1 82	
Blocks	7 00	
Edgestone, 525 feet 9 inches straight, 6 small corners, 65 feet 3 inches circular	482 57	
Flagging, 131 feet 10 inches granite	105 53	
Crushed stone, 98.2 tons	100 17	
Labor, making templates	15 00	
Labor, handling stock	14 15	
Labor, spreading stone	81 75	
Teaming	77 50	
Amount paid to James Doherty, under contract:		
1,200 cubic yards earth excavation @ 60c.	\$720 00	
41 cubic yards water box excavation @ \$1	41 00	
34 cubic yards rock excavation @ \$5.50	187 00	
545 linear feet straight edgestone and corners hauled and set @ 18c.	98 10	
67 linear feet circular edgestone set @ 13c.	8 71	
163 linear feet existing edgestone reset @ 12c.	19 56	
12 square yards granite block paving hauled and laid, gravel joints, @ 55c.	6 60	
13 square yards existing granite block paving relaid, gravel joints, @ 40c.	5 20	
1,818 square yards granite block paving furnished and laid, grout joints, including concrete base, @ \$3.25	5,908 50	
28 square yards flagging crosswalks hauled and laid, grout joints, including concrete base, @ \$1.65	46 20	
3,000 square feet artificial stone sidewalks furnished and laid (unfinished) @ 7c.,	210 00	
100 square feet artificial stone driveways furnished and laid (unfinished) @ 8c.,	8 00	
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	\$7,258 87	
Less 15 per cent retained,	1,088 83	
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	6,170 04	
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	<u>\$7,574 41</u>	

* *Amory street*, from Centre street to Bragdon street. Length, 1,408 linear feet. Area, 5,792 square yards. Edgestone set and roadway subgraded. (Work unfinished.)

Engineering	\$300 31	
Inspection	181 20	
Engineering expense	4 10	
Advertising	9 09	
Labor, handling stock	22 24	
Edgestone, 1,482 feet 10 inches straight and 323 feet 7 inches circular	1,467 27	
	<hr/>	
	\$1,984 21	
Credit: Blocks, 7,769 old granite	155 38	
	<hr/>	
	\$1,828 83	
Amount paid to James Doherty, under contract:		
1,500 cubic yards earth excavation @ 66½c.	\$997 50	
76 cubic yards rock excavation @ \$5.50	418 00	
1,100 linear feet straight edgestone and corners hauled and set @ 18c.	198 00	
260 linear feet circular edgestone set @ 13c.	33 80	
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	\$1,647 30	
Less 15 per cent retained,	247 10	
	<hr/>	
	1,400 20	
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		\$3,229 03

Ardent street, from Belgrade avenue to Colberg avenue. Edgestone set, artificial stone sidewalks laid and asphalt roadway constructed.

Engineering	\$40 03	
Inspection	102 00	
Engineering expense	90	
Teaming	294 61	
Lumber	2 55	
Labor, making templets	5 00	
Labor, chemist	5 12	
Amount paid to Central Construction Company, under contract:		
120 cubic yards earth excavation @ 55c.	\$66 00	
12 square yards existing granite block paving relaid, grout joints, including concrete base, @ \$1.25	15 00	
17 square yards existing flagging crosswalks relaid, grout joints, including concrete base, @ \$1.25	21 25	
840 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.58,	1,327 20	
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Carried forward	\$1,429 45	\$450 21

* Done in connection with Washington street.

Brought forward	\$1,429 45	\$450 21	
3,200 square feet artificial stone sidewalks furnished and laid @ 11½c.	376 00		
4 covers reset @ \$3	12 00		
	<hr/>		
	\$1,817 45		
Less 15 per cent retained,	272 62		
	<hr/>	1,544 83	
		<hr/>	
		\$1,995 04	
Credit: Blocks, old granite	\$4 30		
Flagging	5 49		
	<hr/>	9 79	
		<hr/>	\$1,985 25

Atkins street, from Washington street to 609 feet northeasterly. (Work on contract not started.)

Engineering	\$113 17	
Engineering expense	50	
Advertising	4 60	
Lumber	94 86	
Labor, spreading stone	2 50	
	<hr/>	\$215 63

Augustus avenue, from Metropolitan avenue to Ethel street. Edgestone set and roadway rough graded. (Work unfinished.)

Engineering	\$71 09	
Inspection	62 32	
Engineering expense	2 15	
Advertising	7 28	
Labor, handling stock	8 99	
Edgestone, 600 feet 1 inch straight and 176 feet circular	654 30	
Amount paid Martino DeMatteo, under contract:		
500 cubic yards earth excava- tion @ 75c.	\$375 00	
600 linear feet straight edge- stone and corners hailed and set @ 25c.,	150 00	
136 linear feet circular edge- stone set @ 12c.	16 32	
30 linear feet existing edge- stone reset @ 13c.	3 90	
375 linear feet crushed stone and concrete founda- tion furnished and placed @ 14c.	52 50	
	<hr/>	
	\$597 72	
Less 15 per cent retained,	89 66	
	<hr/>	508 06
		<hr/>
		\$1,314 19

Augustus avenue, from Poplar street to beyond Clarendon avenue. Length, 657 linear feet. Area, 1,968 square yards. Tar macadam roadway constructed, edgestone set and granite block gutters repaved and artificial stone sidewalks constructed.

Engineering expense	\$0 30		
Amount paid to Martino DeMatteo, under contract:			
Removing trees, etc.	15 00		
1,950 cubic yards earth excavation @ 30c.	\$585 00		
11 cubic yards water box excavation @ \$1	11 00		
24 cubic yards rock excavation @ \$4	96 00		
1,001 linear feet straight edgestone and corners hauled and set @ 19c.,	190 19		
260 linear feet circular edgestone set @ 12c.	31 20		
179 square yards granite block paving furnished and laid @ \$2	358 00		
1,937 square yards bituminous macadam surface furnished and placed (tar binder) @ 68c.	1,317 16		
7,228 square feet artificial stone sidewalks furnished and placed @ 12c.	867 36		
174 square feet artificial stone driveways furnished and laid @ 12c.,	20 88		
Extra work: Rehandle circular edgestone dumped on Poplar street:			
½ day, foreman, @ \$3	1 50		
1 days' labor @ \$2.25	2 25		
Plus 15 per cent on \$3.75,	56		
½ day, double team, @ \$6	3 00		
Extra work — Grade approach to Clarendon avenue:			
5 days' labor @ \$2.25	11 25		
Plus 15 per cent on \$11.25	1 69		
½ day, steam roller, @ \$12,	10 50		
Allowance for delay under Article 8 of contract:			
11 days' labor @ \$2.25	24 75		
Plus 15 per cent on \$24.75	3 71		
	<u>\$3,551 00</u>		
Amount paid in 1915	<u>2,603 72</u>		
		<u>947 28</u>	
			<u>\$947 58</u>

Bardwell street, from South street to Ballard street. Edgestone set, artificial stone sidewalks constructed and roadway partly paved with asphalt pavement. (Work unfinished.)

Engineering	\$159 31
Inspection	132 75
<i>Carried forward</i>	<u>\$292 06</u>

<i>Brought forward</i>			\$292 06
Engineering expense			2 50
Advertising			9 13
Lumber			2 40
Edgestone, 923 feet 4 inches straight and 300 feet circular and 8 small corners			1,073 91
Labor, handling stock			13 96
Labor, making templates			11 00
Labor, stonecutter			21 00
Labor, chemist			5 11
Amount paid to Central Construction Company, under contract:			
500 cubic yards earth excavation @ 55c.	\$275 00		
900 linear feet straight edgestone and corners hauled and set @ 17c.,	153 00		
300 linear feet circular edgestone set @ 15c.	45 00		
1,200 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid (unfinished) @ 68c.	816 00		
4,500 square feet artificial stone sidewalks furnished and laid @ 11½c.	528 75		
	<u>\$1,817 75</u>		
Less 15 per cent retained,	272 66		
		1,545 09	
		<u>\$2,976 16</u>	
Credit: Blocks, old granite	\$2 00		
Edgestone, old granite	8 40		
Flagging, old North River	9 00		
		19 40	
		<u>\$2,956 76</u>	
<i>Bexley road, from Washington street to Florence street. (Work not started.)</i>			
Engineering		\$94 13	
Engineering expense		50	
Advertising		5 82	
		<u>\$100 45</u>	
<i>Birch street, from Penfield street to Dudley avenue. (Work done in 1915.)</i>			
Engineering expense			<u>\$0 30</u>
<i>Blake street (northeasterly), from Randolph street.</i>			
Engineering		\$67 71	
Engineering expense		20	
Advertising		5 82	
		<u>\$73 73</u>	
<i>Bcurneside street, from Park street to Melville avenue. (Work done in 1915.)</i>			
Engineering expense			<u>\$0 30</u>

Bradwood street, from Colberg avenue to Belgrade avenue. Length, 872 linear feet. Area, 2,740 square yards. Tar macadam roadway constructed, edgestone set (part on crushed stone foundation), flagging crosswalks laid and artificial stone sidewalks constructed.

Amount paid Martino DeMatteo, under contract:

Removing trees, bushes, etc.	\$0 50
971 cubic yards earth excavation @ 35c.	339 85
5 cubic yards water box excavation @ \$5	25 00
4 cubic yards rock excavation @ 00c.	0 00
1,613 linear feet straight edgestone and corners hauled and set @ 20c.,	322 60
6 linear feet circular edgestone set @ 14c.	84
28 linear feet existing edgestone reset @ 14c.	3 92
395 linear feet crushed stone and concrete foundation furnished and placed @ 12c.	47 40
36 square yards existing granite block paving relaid @ 40c.	14 40
20 square yards existing flagging crosswalks relaid @ 50c.	10 00
2,485 square yards bituminous macadam surface furnished and placed (tar binder) @ 70c.	1,739 50
10,499 square feet artificial stone sidewalks furnished and placed @ 13c.	1,364 87
56 square feet artificial stone driveways furnished and placed @ 13c.	7 28
7 covers reset @ \$3	21 00
Extra work — Regulate manhole covers over 6 inches:	
3 manhole covers regulated @ \$7.50	22 50
Extra work — Rebuild 2 catch-basins:	
2 catch-basins rebuilt @ \$10	20 00
Extra work — Cut monument to grade:	
½ day, stonecutter, @ \$5	2 50
Plus 15 per cent on \$2.50,	38
Allowance for delay under Article 8 of contract:	
9 days' labor @ \$2.25	20 25
Plus 15 per cent on \$20.25	3 04
1 day, double team, @ \$6	6 00
<i>Carried forward</i>	<u>\$3,971 83</u>

<i>Brought forward</i>	\$3,971 83	
8 loads cinders @ \$2.25	18 00	
25 barrels cement @ \$1.75	43 75	
	<u>\$4,033 58</u>	
Less 1,381 gallons tar not furnished by contractor @ 8c.	110 48	
	<u>\$3,923 10</u>	
Less amount paid in 1915,	3,237 91	
	<u>\$685 19</u>	<u>\$685 19</u>
<i>Breck avenue, from Washington street to Nonantum street. (Work not started.)</i>		
Engineering	\$9 29	
Advertising	75	
	<u>\$10 04</u>	
<i>Brunswick street, from Blue Hill avenue to Normandy street. Length, 639 linear feet. Area, 1,849 square yards. Roadway paved with asphalt and artificial stone sidewalks constructed by the contractor. Edgestone set, flagging crosswalks laid and concrete base laid by division foremen. (Unfinished work from 1915.)</i>		
Engineering	\$108 36	
Inspection	87 79	
Engineering expense	2 90	
Advertising	1 08	
Labor, chemist	15 20	
Labor, making templets	12 50	
Lumber	8 29	
Cement	62	
Gravel	28 84	
Teaming	757 75	
Steam roller, rolling	13 00	
Steam roller, picking	104 00	
Amount paid Central Construction Company, under contract:		
400 cubic yards earth excavation @ 55c.	\$220 00	
44 square yards existing granite block paving relaid, gravel joints, @ 40c.	17 60	
1,849 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.60	2,958 40	
7,649 square feet artificial stone sidewalks furnished and laid @ 12½c.	956 13	
67 square feet artificial stone driveways furnished and laid @ 14c.	9 38	
1 cover reset @ \$3	3 00	
	<u>\$4,164 51</u>	
Less 15 per cent retained,	624 68	
	<u>3,539 83</u>	
<i>Carried forward</i>		<u>\$4,680 16</u>

<i>Brought forward</i>	\$4,680 16	
Labor, edgestone excavating	21 00	
Labor, edgestone setting	36 75	
Labor, edgestone for sidewalk	28 83	
Labor, roadway excavating and subgrading	907 21	
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	\$5,673 95	
Credit: Blocks, old granite	6 50	
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		<u>\$5,667 45</u>

Caledonian avenue. (See Charles street.) Special appropriation.

Caspian way, from Savin Hill avenue easterly. (Work not started.)

Engineering	\$126 04	
Inspection	8 00	
Engineering expense	1 40	
Advertising	2 78	
	<hr/>	
		<u>\$138 22</u>

Cedric street, from Magazine street to Langdon street. Length, 616 linear feet. Area, 1,369 square yards. Edgestone set, roadway paved with asphalt and artificial stone sidewalks constructed.

Engineering	\$114 55	
Inspection	214 75	
Engineering expense	4 85	
Advertising	3 12	
Edgestone, 1,185 feet straight, 19 feet 3 inches circular	877 51	
Lumber	1 63	
Labor, making templets	5 50	
Labor, handling stock	17 77	
Teaming	1 25	
Amount paid Central Construction Company, under contract:		
1,300 cubic yards earth excavation @ 55c.	\$715 00	
1,179 linear feet straight edgestone and corners hauled and set @ 18c.	212 22	
20 linear feet circular edgestone set @ 11c.	2 20	
11 linear feet existing edgestone reset @ 10c.	1 10	
1,356 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.60,	2,169 60	
5,302 square feet artificial stone sidewalks furnished and laid @ 12½c.	662 75	
5 covers reset @ \$3	15 00	
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	\$3,777 87	
Less 15 per cent retained,	566 68	
	<hr/>	
		3,211 19
		<hr/>
		\$4,452 12
Credit: Flagging, old North River	10 80	
	<hr/>	
		<u>\$4,441 32</u>

Centervale park, from Upland avenue to Bourneside street. Length, 517 linear feet. Area, 2,234 square yards. Edgestone set and roadway paved with asphalt. (Work unfinished.)

Engineering	\$90 70
Inspection	144 50
Engineering expense	3 15
Advertising	3 12
Labor, edgestone reset	22 25
Labor, handling stock	28 45
Edgestone, 1,900 feet straight, 8 small corners and 30 feet 6 inches circular	1,180 97
Labor, making templets	7 50
Gravel	2 20
Cement	50
Lumber	4 44
Teaming	17 00

Amount paid Central Construction Com-
pany, under contract:

500 cubic yards earth excava- tion @ 55c.	\$275 00
1,850 linear feet straight edge- stone and corners hauled and set @ 18c.	333 00
30 linear feet circular edge- stone set @ 11c.	3 30
2,100 square yards concrete base, bituminous concrete binder and asphalt wearing surface fur- nished and laid @ \$1.60,	3,360 00
7 covers reset @ \$3	21 00

\$3,992 30

Less 15 per cent retained,

598 85

3,393 45

\$4,898 23

Credit: Flagging, old North River

29 82

\$4,868 41

Chapin avenue, from Mt. Vernon street to Preston road. Length, 499 linear feet. Area, 1,184 square yards. Tar macadam roadway constructed, edgestone set, block gutters paved and artificial stone sidewalks constructed. (Final payment for work done in 1915.)

Amount paid to John Kelley Company,
under contract:

Removing trees, bushes, etc.	\$25 00
1,776 cubic yards earth excavation @ 35c.	621 60
9 cubic yards rock excavation @ \$3	27 00
923 linear feet straight edgestone and corners hauled and set @ 19c.	175 37
69 linear feet circular edgestone set @ 10c.,	6 90
200 linear feet existing edgestone reset @ 10c.	20 00
272 square yards granite block paving hauled and laid @ 75c.	204 00
935 square yards bituminous macadam sur- face furnished and placed (tar binder) @ 62c.	579 70

Carried forward

\$1,659 57

<i>Brought forward</i>	\$1,659 57	
4,882 square feet artificial stone sidewalks furnished and laid @ 12½c.	610 25	
2 covers reset @ \$3	6 00	
178 linear feet wooden fence furnished and built @ 25c.	44 50	
Extra work — Grade banks as directed at railroad fence:		
1½ days, foreman, @ \$5	7 50	
8½ days' labor @ \$2	17 00	
Plus 15 per cent on \$24.50	3 68	
2½ days, double team, @ \$6	15 00	
Extra work — Haul circular edgestone out of lot:		
1½ days' labor @ \$2	3 00	
Plus 15 per cent on \$3	45	
¾ day, double team, @ \$6	4 50	
Extra work — Set edgestone into retain- ing wall at railroad bridge:		
1 day, foreman, @ \$5	5 00	
¾ day, mason, @ \$5	3 75	
3½ days' labor @ \$2	7 00	
Plus 15 per cent on \$15.75	2 36	
100 bricks @ 1½c.	1 50	
2 bags cement @ 50c.	1 00	
1 barrel sand @ 20c.	20	
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	\$2,392 26	
Less amount paid in 1915	2,182 17	
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		\$210 09

Chauncy street, from Bedford street 106 feet northwesterly. Widened on southwesterly side. Edgestone set, roadway repaved on concrete base with pitch joints, crosswalks relaid and brick sidewalks relaid.

Labor, edgestone excavating	\$6 25	
Labor, edgestone resetting	5 75	
Labor, concrete base	36 34	
Labor, roadway excavating	166 51	
Labor, roadway repaving	208 66	
Labor, crosswalks excavating	15 00	
Labor, crosswalks relaying	30 25	
Labor, brick walks relaying	2 00	
Crushed stone, 15.4 tons	20 02	
Cement, 10 barrels	20 00	
Pitch, 6,245 pounds	37 94	
Pebbles, 9.58 tons	23 48	
Sand, 11 tons	10 50	
Gravel, 38 tons	24 65	
Bricks, 400 sidewalk	5 01	
Blocks, 2,550 old granite	51 00	
Flagging	37 13	
Teaming	135 00	
Edgestone	8 55	
	<hr/>	
		\$844 04

Claybourne street, from 210 feet south of Dakota street to Park street.
(Unfinished work from 1915.)

Engineering	\$5 00	
Labor, cutting bank	114 10	
Teaming	326 10	
	<hr/>	
		\$445 20

Cliffmont street, southwesterly from Canterbury street. (Work not started.)

Engineering	\$64 66	
Engineering expense	90	
Advertising	2 03	
		<u>\$67 59</u>

Condor street, from Glendon street to East Eagle street. Edgestone set, roadway paved with Hassam block pavement on a Hassam base, brick sidewalks laid and a sea wall was built.

Engineering	\$380 49
Inspection	646 55
Engineering expenses	11 33
Advertising	11 10
License	1 00
Edgestone, 1,540 feet straight, 13 small corners and 54.2 feet, circular	1,325 75
Brick, 56,250 sidewalk	703 12
Blocks, 880 granite	48 04
Gravel	6 49
Cement, 20 bags	9 90
Crushed stone, 8 tons	11 00
Moving locker and booths	45 00
Teaming	20 00
Labor, edgestone excavation	1 50
Labor, edgestone resetting	4 50
Labor, driveway excavating	1 50
Labor, driveway paving	12 00
Labor, concrete base	4 50

Amount paid Bay State Dredging and Contracting Company:

Removing trees, etc.	\$10 00	
669 cubic yards earth excavation @ 50c.	334 50	
2 cubic yards rock excavation @ \$1	2 00	
495 cubic yards filling furnished @ \$1.40	693 00	
1,554 linear feet straight edgestone and corners set @ 15c.	233 10	
56 linear feet circular edgestone set @ 20c.	11 20	
208 linear feet existing edgestone reset @ 15c.	31 20	
17 square yards granite block paving relaid, gravel joints, @ 45c.	7 65	
3,150 square yards Hassam block pavement furnished and laid, grout joints, including concrete foundation, @ \$3.25	10,237 50	
1,216 square yards brick sidewalk laid @ 45c.	547 20	
Building sea wall and fence	5,000 00	
<i>Carried forward</i>	<u>\$17,107 35</u>	<u>\$3,243 77</u>

<i>Brought forward</i>	\$17,107 35	\$3,243 77	
Extra work — Cut and dress edgestone for entrances not shown on plans:			
8½ hours, stonecutter, @ 62½c.	5 31		
Plus 15 per cent on \$5.31	80		
Cut sheet piling over sewer trench and plank-ing in old shed floor:			
13½ hours' labor @ 30c.	4 05		
Plus 15 per cent on \$4.05	61		
Extra work — Haul and place riprap stone to protect slopes at end of sea wall:			
3 hours, double team, @ 81½c.	2 44		
6 hours' labor @ 30c.	1 80		
Plus 15 per cent on \$1.80	27		
Extra work — Build masonry wall to connect sea wall with old wall on Glendon street:			
5 hours, mason, @ 50c.	2 50		
Plus 15 per cent on \$2.50	38		
Extra work — Remove old edgestone where directed and backfill water trench:			
9 hours, foreman, @ 60c.	5 40		
22½ hours' labor @ 30c.	6 75		
Plus 15 per cent on \$12.15,	1 82		
9 hours, double team, @ 81½c.	7 31		
	<u>\$17,146 79</u>		
Less amount deducted for finishing old wall with concrete instead of rubble masonry	25 00		
	<u>17,121 79</u>		
		<u>\$20,365 56</u>	
<i>Conley street</i> , from Old Colony Parkway to Tenean street. (Work not started.)			
Engineering		\$13 00	
Advertising		2 03	
		<u>\$15 03</u>	
<i>Cornell street</i> , from Orange street to Colberg avenue. Roadway rough graded. (Work unfinished.)			
Engineering		\$149 52	
Inspection		51 58	
Engineering expense		1 55	
Advertising		2 78	
		<u>\$205 43</u>	
<i>Carried forward</i>			

<i>Brought forward</i>		\$205 43	
Edgestone, 54 feet		39 30	
Teaming		451 75	
Labor, roadway excavating		215 36	
Labor, temporary steps		3 50	
Amount paid to Martino DeMatteo, under contract:			
1,000 cubic yards earth excavation @ 75c.	\$750 00		
Less 15 per cent retained	112 50		
		637 50	
			<u>\$1,552 84</u>

Crandall street, from Augustus avenue to Hillside avenue. Length, 407 linear feet. Area, 1,176 square yards. Tar macadam roadway constructed, edgestone set (part on crushed stone) and artificial stone sidewalks constructed.

Engineering expense \$0 30

Amount paid Martino DeMatteo, under contract:

Removing trees, bushes, etc.	\$5 00		
675 cubic yards earth excavation @ 30c.	202 50		
8 cubic yards rock excavation @ \$4	32 00		
762 linear feet straight edgestone and corners hauled and set @ 19c.,	144 78		
22 linear feet circular edgestone set @ 11c.	2 42		
378 linear feet crushed stone and concrete foundation furnished and placed @ 10c.	37 80		
1,177 square yards bituminous macadam surface furnished and placed (tar binder) @ 68c.	800 36		
4,920 square feet artificial stone sidewalks furnished and laid @ 12c.	590 40		
231 square feet artificial stone driveways furnished and laid @ 20c.	46 20		
Extra work — Haul circular edgestone from Poplar street:			
½ day's labor @ \$2.25	1 13		
Plus 15 per cent on \$1.13,	17		
½ day, double team, @ \$6	1 50		
Extra work — Grade approach at Hillside avenue:			
½ day, foreman, @ \$3	1 50		
3 days' labor @ \$2.25	6 75		
Plus 15 per cent on \$8.25,	1 24		
½ day, double team, @ \$6	3 00		
<i>Carried forward</i>	\$1,876 75	\$0 30	

<i>Brought forward</i>	\$1,876 75	\$0 30	
Extra work — Haul surplus edgestone to Augustus avenue:			
½ day's labor @ \$2.25	1 13		
Plus 15 per cent on \$1.13,	17		
½ day, steam roller, @ \$12	3 00		
Allowance for delay under Article 8 of contract:			
2 days' labor @ \$2.25	4 50		
Plus 15 per cent on \$4.50,	68		
	<hr/>		
	\$1,886 23		
Less amount paid in 1915	1,486 05		
	<hr/>	400 18	
		<hr/>	<u>\$400 48</u>

Crown path, from Claybourne street to Washington street. Length, 221 linear feet. Area, 245 square yards. Artificial stone walks and steps constructed.

Engineering	\$166 97	
Inspection	190 00	
Engineering expense	3 75	
Advertising	4 50	
Amount paid James Doherty, under contract:		
Building artificial stone walks, steps and walls,	2,839 26	
	<hr/>	<u>\$3,204 48</u>

Cummings road, from Commonwealth avenue extended. (Work not started.)

Engineering	\$113 95	
Advertising	2 57	
	<hr/>	<u>\$116 52</u>

Dana avenue footway, from Dana avenue to Easton avenue. (Work not started.)

Engineering	\$84 33	
Engineering expense	7 45	
	<hr/>	<u>\$91 78</u>

Dane street, from Holbrook street to Orchard street. (Work done in 1915.)

Engineering expense	<u>\$0 40</u>
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Dempster street, from Ruggles street to Halleck street. (Work done in 1915.)

Engineering expense	<u>\$0 30</u>
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Downer avenue, extended to Sawyer avenue. (Work not started.)

Engineering	\$52 05	
Advertising	2 78	
	<hr/>	<u>\$54 83</u>

Dunlap street, from Washington street to Whitfield street. Length, 804 linear feet. Area, 1,787 square yards. Roadway paved with asphalt

and artificial stone sidewalks constructed. Edgestone set, flagging crosswalks laid and concrete base laid by division forces. (Unfinished work from 1915.)

Engineering	\$30 92	
Inspection	42 00	
Engineering expense	85	
Advertising	4 80	
Crushed stone, 189.3 tons	227 25	
Cement, 205 barrels	270 04	
Sand, 99 cubic yards	113 40	
Gravel, 9 cubic yards	8 82	
Hire of concrete mixer	110 00	
Amount paid William J. Rafferty & Co., under contract:		
1,759 square yards bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.53	\$2,691 27	
823 square feet artificial stone sidewalks furnished and laid @ 20c.	164 60	
64 square feet artificial stone driveways furnished and laid @ 20c.	12 80	
10 linear feet artificial stone curb furnished and laid @ \$1	10 00	
Extra work — Remove surplus excavation left by Paving Service:		
10 cubic yards earth excavation removed @ 75c.	7 50	
Extra work — Trim artificial stone to street line at Hall's Garage:		
6 hours, stonecutter, @ 62½c.	3 75	
4 hours' labor @ 25c.	1 00	
Plus 15 per cent on \$4.75,	71	
	\$2,891 63	
Less amount paid in 1915,	2,556 71	
		334 92
		<u>\$1,143 00</u>

Dunster road, from Center street to Pond street. Edgestone set, artificial stone sidewalks constructed and roadway partly constructed with asphalt pavement. (Work unfinished.)

Engineering	\$232 22
Inspection	139 20
Engineering expense	5 80
Advertising	3 13
Edgestone, 1066 feet straight, 19 feet circular and 10 small corners	828 23
Lumber	1 56
Labor, handling stock	16 31
Labor, making templets	5 50
Labor, stonecutter	33 00
Teaming	1 25
Carried forward	\$1,266 20

<i>Brought forward</i>		\$1,266 20	
Amount paid to Central Construction Company, under contract:			
1,500 cubic yards earth excavation @ 55c.	\$825 00		
1,000 linear feet straight edgestone and corners hauled and set @ 17c.	170 00		
19 linear feet circular edgestone set @ 15c.	2 85		
100 linear feet existing edgestone reset @ 12c.	12 00		
5,000 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid (unfinished) @ 68c.	3,400 00		
6,100 square feet artificial stone sidewalks furnished and laid @ 11½c.	716 75		
100 square feet artificial stone driveways furnished and laid @ 15c.	15 00		
	<u>\$5,141 60</u>		
Less 15 per cent retained,	771 24		
	<u>4,370 36</u>		
		\$5,636 56	
Credit: Block, old granite	\$6 50		
Flagging, old North River	18 00		
	<u>24 50</u>		
		<u>\$5,612 06</u>	

East First street, from H street to West First street. Repaved roadway with old granite blocks with cement grout joints. (Unfinished work from 1915.)

Engineering	\$34 13	
Engineering expense	30	
Labor, edgestone excavating	3 75	
Labor, edgestone setting	4 25	
Labor, sidewalk excavating	2 50	
Labor, sidewalk laying	26 08	
Labor, roadway excavating	39 25	
Labor, roadway paving	115 84	
Edgestone, 29 feet straight	12 48	
Flagging, 185 feet 2 inches granite	143 97	
Bricks, 48,000 sidewalk	606 25	
Blocks, 73,348 old granite	1,706 09	
Cement	315 69	
Sand, 127 cubic yards	189 26	
Gravel, 383½ cubic yards	378 43	
Teaming	247 25	
	<u>\$3,825 52</u>	
Credit: Edgestone	16 16	
	<u>\$3,809 36</u>	

Elgin street, from Centre street to West Roxbury Branch Railroad. Length, 598 linear feet. Area, 1,728 square yards. Roadway paved with

asphalt on a six (6) inch concrete base, edgestone set and artificial stone sidewalks constructed.

Inspection		\$14 00
Asphalt analysis		4 00
Amount paid Charles J. Jacobs Company, under contract:		
Removing trees, bushes, etc.	\$50 00	
1,212 cubic yards earth excavation @ 30c.	363 60	
102 cubic yards rock excavation @ \$5	510 00	
365 linear feet straight edgestone and corners hauled and set @ 20c.	73 00	
59 linear feet circular edgestone set @ 15c.	8 85	
1,780 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$2.23,	3,969 40	
7,090 square feet artificial stone sidewalks furnished and laid @ 10c.	709 00	
173 square feet artificial stone driveways furnished and laid @ 12c.	20 76	
10 covers reset @ \$3	30 00	
Extra work — Omit the hauling and setting of about 700 feet of straight edgestone and substitute the furnishing and setting of same:		
749 linear feet straight edgestone furnished and set @ 97c.	726 53	
Extra work — Relay paving and set edgestone at approach to railroad:		
1 day, paver, @ \$5	5 00	
2 days' labor @ \$2	4 00	
Plus 15 per cent on \$9	1 35	
Extra work — Grade approaches at Centre and Hillcrest streets:		
1½ days' labor @ \$2	3 00	
Plus 15 per cent on \$3	45	
Extra work — Omit the hauling and laying of granite block paving on concrete base and grout joints and substitute the relaying of same on concrete base, grout joints:		
14 square yards existing granite block paving relaid, concrete base, grout joints, @ \$1.50	21 00	
	<hr/>	
	\$6,495 94	
Carried forward	\$6,495 94	\$18 00

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<i>Brought forward</i>	\$6,495 94	\$18 00	
Less amount paid in 1915,	<u>6,395 94</u>	100 00	
		<u>\$118 00</u>	
Credit: Edgestone		11 60	
		<u>\$106 40</u>	

Epping street, from Washington street to Norfolk street. Length, 241 linear feet. Area, 556 square yards. Edgestone set and street rough graded. (Work unfinished.)

Engineering		\$30 16	
Inspection		47 26	
Engineering expense		85	
Advertising		1 08	
Edgestone, 380 feet straight and 19 feet circular		297 39	
Labor, handling stock		5 70	
Amount paid to Central Construction Company, under contract:			
200 cubic yards earth excavation @ 55c.	\$110 00		
Less 15 per cent retained	<u>16 50</u>		
		93 50	
		<u>\$475 94</u>	
Credit: Blocks, 1,760 old granite		35 20	
		<u>\$440 74</u>	

Eric avenue, from Savin Hill avenue to 344 feet northerly. Length, 335 linear feet. Area, 215 square yards. Edgestone set, roadway paved with asphalt on a concrete base and artificial stone sidewalks constructed. (Work unfinished.)

Engineering		\$218 96	
Inspection		106 66	
Engineering expense		9 20	
Advertising		7 91	
Edgestone, 419 feet 7 inches straight, 2 small corners and 21 feet 2 inches circular		336 87	
Lumber		3 78	
Labor, handling stock		6 39	
Labor, making templets		5 00	
Teaming		2 50	
Amount paid Central Construction Company, under contract:			
409 cubic yards earth excavation @ 55c.	\$224 95		
410 linear feet straight edgestone and corners hauled and set @ 18c.,	73 80		
20 linear feet circular edgestone set @ 11c.	2 20		
7 linear feet existing edgestone reset @ 10c.	70		
1,215 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.60	<u>1,944 00</u>		
<i>Carried forward</i>	\$2,245 65	\$697 27	

<i>Brought forward</i>	\$2,245 65	\$697 27
3,330 square feet artificial stone sidewalks fur- nished and laid (un- finished) @ 9c.	299 70	
	<hr/> \$2,545 35	
Less 15 per cent retained,	381 80	
	<hr/>	2,163 55
		<hr/> \$2,860 82
Credit: Flagging, old North River		23 04
		<hr/>
		<u>\$2,837 78</u>

Everton street, between Olney street and Geneva avenue. Length, 690 linear feet. Area, 2,026 square yards. Edgestone set, roadway paved with Topeka, artificial stone sidewalks constructed. (Work unfinished.)

Engineering	\$262 85
Inspection	195 00
Engineering expense	7 75
Advertising	1 08
Edgestone, 730 feet straight, 4 small corners and 549 feet circular	1,141 71
Lumber	11 01
Nails	05
Sand	13 20
Gravel	17 60
Cement	1 04
Dynamite and exploders	43 18
Teaming	464 15
Labor, handling stock	8 70
Labor, making templets	6 62
Labor, building steps	12 00
Labor, edgestone excavating	343 89
Labor, edgestone resetting	232 22
Labor, excavating roadway	428 43
Amount paid John E. Gill, under contract:	
Removing trees and stumps	350 00
Amount paid Central Construction Com- pany, under contract:	
500 cubic yards earth excava- tion @ 55c.	\$275 00
100 cubic yards rock excava- tion @ \$5	500 00
260 linear feet straight edge- stone and corners hailed and set @ 18c.,	46 80
130 linear feet circular edge- stone set @ 11c.	14 30
Extra work — Omit sheet asphalt and sub- stitute Topeka pavement:	
1,950 square yards concrete base and Topeka pave- ment furnished and laid (unfinished) @ \$1.10	2,145 00
	<hr/> \$2,981 10
<i>Carried forward</i>	<hr/> \$2,981 10
	<hr/>
	<hr/> \$3,540 48

Brought forward	\$2,981 10	\$3,540 48
Less 15 per cent retained,	447 17	
	<hr/>	2,533 93
		<hr/> <u>\$6,074 41</u>

Faywood avenue, from Orient avenue to Tower street. (Work not started.)

Engineering	<hr/> <u>\$6 50</u>
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Fernboro street, from Lawrence avenue to Intervale street. Length, 500 linear feet. Asphalt pavement laid on a 6-inch Portland cement concrete base, edgestone set, flagging crosswalks laid and artificial stone sidewalks constructed.

Engineering	\$115 73
Inspection	168 00
Engineering expense	3 25
Advertising	11 63
Edgestone, 920 feet straight, 62 feet 8 inches circular and 2 small corners	617 95
Flagging, 14 feet granite	11 27
Lumber	2 73
Teaming	1 25
Labor, handling stock	14 11

Amount paid to James Doherty, under contract:

Removing trees, etc.	\$0 01
708 cubic yards earth excavation @ 45c.	318 60
25 cubic yards water box excavation @ \$1	25 00
33.5 cubic yards rock excavation @ \$3	100 50
920 linear feet straight edgestone and corners hauled and set @ 15c.	138 00
44 linear feet circular edgestone set @ 12c.	5 28
40 linear feet existing edgestone reset @ 11c.	4 40
15 square yards existing granite block paving relaid @ 30c.	4 50
18 square yards existing granite block paving relaid, grout joints, including concrete base, @ \$1.20	21 60
3 square yards flagging crosswalks hauled and laid, grout joints, including concrete base, @ \$1.45	4 35
20 square yards existing flagging crosswalks relaid, grout joints, including concrete base, @ \$1.20	24 00
	<hr/>
Carried forward	\$646 24
	<hr/> <u>\$945 92</u>

<i>Brought forward</i>	\$646 24	\$945 92
1,430 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and placed @ \$2.18	3,117 40	
6,224 square feet artificial stone sidewalks furnished and laid @ 10c.,	622 40	
72 square feet artificial stone driveways furnished and laid @ 11c.,	7 92	
6 covers reset @ \$3	18 00	
Extra work — Regulate catch-basin at Intervale street more than six (6) inches:		
4 hours, mason, @ 62½c.	2 50	
8 hours' labor @ 30c.	2 40	
Plus 15 per cent on \$4.90,	74	
2 bags cement @ 50c.	1 00	
150 bricks @ 1c.	1 50	
	<hr/>	4,420 10
		<hr/> <u>\$5,366 02</u>

Fordham road, from Commonwealth avenue to Brighton avenue. (Work not started.)

Engineering	\$27 28
Engineering expense	50
Advertising	4 60
	<hr/>
	<u>\$32 38</u>

Gaffney street, from Commonwealth avenue to Boston & Albany Railroad. Edgestone set, roadway rough graded. (Work unfinished.)

Engineering	\$162 51
Inspection	31 75
Engineering expense	3 70
Advertising	4 62
Edgestone, 535 feet 3 inches straight and 10 small corners	445 38
Labor, handling stock	8 03
Amount paid to Central Construction Company, under contract:	
1,750 cubic yards earth excavation @ 74c.	\$1,295 00
12 cubic yards rock excavation @ \$6	72 00
580 linear feet straight edgestone and corners hauled and set (unfinished) @ 10c.	58 00
	<hr/>
	\$1,425 00
Less 5 per cent retained	71 25
	<hr/>
	1,353 75
	<hr/> <u>\$2,009 74</u>

Glencoe street, from North Beacon street to Boston & Albany Railroad. (Work not started.)

Engineering	\$100 59	
Engineering expense	40	
Advertising	4 60	
		<u>\$105 59</u>

Glendower road, from Kittredge street to Poplar street. Length, 1,925 linear feet. Area, 8,600 square yards. Roadway paved with asphalt on a six (6) inch Portland cement concrete base. Edgestone set and artificial stone sidewalks constructed.

Engineering	\$113 29	
Inspection	266 00	
Engineering expense	4 10	
Edgestone, 1,177 feet 3 inches straight and 4 small corners	724 68	
Blocks	3 40	
Labor, excavating	5 32	
Labor, making templets	8 25	
Labor, handling stock	4 78	
Lumber	2 55	
Teaming	2 50	
Amount paid to Charles J. Jacobs Company, under contract:		
Removing trees, etc.	\$0 00	
3,618 cubic yards earth excavation @ 40c.	1,447 20	
14 cubic yards water box excavation @ \$1.50	21 00	
20 cubic yards rock excavation @ \$3	60 00	
3,761 linear feet straight edgestone and corners hauled and set @ 19c.,	714 59	
38 linear feet circular edgestone set @ 15c.	5 70	
195 linear feet existing edgestone reset @ 12c.	23 40	
1,230 linear feet crushed stone and concrete foundation furnished and placed @ 14c.	172 20	
6 square yards existing granite block paving relaid @ 40c.	2 40	
5 square yards granite block paving hauled and laid, grout joints, including concrete base, @ \$1.50	7 50	
5,578 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and placed @ \$2.13	11,881 14	
23,986 square feet artificial stone sidewalks furnished and laid @ 10c.	2,398 60	
529 square feet artificial stone driveways furnished and laid @ 12c.	63 48	
Carried forward	<u>\$16,797 21</u>	<u>\$1,134 87</u>

<i>Brought forward</i>	\$16,797 21	\$1,134 87
18 covers reset @ \$3	54 00	
Extra work — Regulate sewer manhole covers over six (6) inches:		
1½ days, foreman, @ \$5	6 88	
3½ days, mason, @ \$6	20 25	
2½ days, helper, @ \$2.80	8 05	
6½ days, labor, @ \$2.40	16 20	
Plus 15 per cent on \$51.38	7 71	
625 bricks @ \$12 M.	7 50	
12 bags cement @ 60c.	7 20	
12 cubic feet sand @ 5c.	60	
Extra work — Remove asphalt surface and concrete base which has settled over sewer trench and replace with new concrete base and asphalt surface as directed:		
28 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$2.13	59 64	
	<hr/>	
	\$16,985 24	
Less amount paid in 1915,	7,514 11	
	<hr/>	
		9,471 13
		<hr/>
		<u>\$10,606 00</u>

Gove street, from Cottage street to Venice street. (Work not started.)

Engineering	\$21 00
Engineering expenses	60
	<hr/>
	<u>\$21 60</u>

Gove Street Footbridge, from Orleans street to Bremen street. Footway, built over tracks of Boston & Albany Railroad. One hundred fifty-seven-foot span riveted through two steel trusses. (Unfinished work from 1915.)

Engineering	\$462 10
Inspection	228 01
Advertising	14 03
Printing	44 50
Edgestone	51 80
Bricks, sidewalk	45 63
Sand	8 40
Labor, setting edgestone	92 74
Labor, changing doors	31 74
Electric lighting	7 61
Rent of land	2 91
Labor, relaying brick walks	57 02
Teaming	57 50
Amount paid E. S. Butterfield & Co.:	
Contract price	\$860 00
Less previous payment in 1915,	731 00
	<hr/>
	129 00
	<hr/>
<i>Carried forward</i>	\$1,232 99

<i>Brought forward</i>		\$1,232 99	
Amount paid Boston Bridge Works, Inc., under contract:			
Contract price	\$8,626 00		
Extra work as ordered:			
570 pounds steel plates @ 45c.,	25 65		
48 hours' labor on plates @ 90c.	43 20		
Labor on anchor bolts, 8 hours, @ 90c.	7 20		
		8,702 05	
			<u>\$9,935 04</u>

Grace street, from Roslin street to Walton street. (Work done in 1915.)

Engineering	\$2 55		
Engineering expense	10		
			<u>\$2 65</u>

Granada avenue, from Metropolitan avenue to Ethel street. Edgestone set and roadway rough graded. (Work unfinished.)

Engineering	\$147 61		
Inspection	36 18		
Engineering expense	1 60		
Advertising	2 78		
Edgestone, 716 feet straight, 6 small corners and 52 feet circular	602 52		
Labor, handling stock	11 84		
Amount paid Martino DeMatteo, under contract:			
250 cubic yards earth excavation @ 75c.	\$187 50		
700 linear feet straight edgestone and corners hauled and set @ 25c.	175 00		
30 linear feet circular edgestone set @ 12c.	3 60		
25 linear feet existing edgestone reset @ 13c.	3 25		
		\$369 35	
Less 15 per cent retained	55 40		
		313 95	
			<u>\$1,116 48</u>

Halifax street, from South Huntington avenue to Pond View street. (Work not started.)

Engineering	\$11 71		
Advertising	3 13		
			<u>\$14 84</u>

Hallet street, from Minot street to New York, New Haven & Hartford Railroad. Length, 1,858 linear feet. Area, 7,020 square yards. Six-inch macadam roadway constructed, edgestone set, block gutters paved, flagging crosswalks laid and artificial stone sidewalks constructed.

Amount paid to John Kelly Company, under contract:

25,852 cubic yards filling furnished and placed @ 74c.	\$19,130 48		
<i>Carried forward</i>	\$19,130 48		

<i>Brought forward</i>	\$19,130 48	
Extra work — Build approach to Hallet street from the old road near the railroad:		
5 hours, foreman, @ 62½c.,	3 13	
41 hours' labor @ 25c.	10 25	
Plus 15 per cent on \$13.38	2 01	
10 hours, double team, @ 62½c.	6 25	
Extra work — Build box culvert to drain adjacent marsh land:		
Box culvert furnished and built	120 00	
		\$19,272 12
Less amount paid in 1911,	\$5,661 00	
Less amount paid in 1912,	12,658 48	
	<u>\$18,319 48</u>	
Less amount paid in 1911 and 1912	18,319 48	
		\$952 64
Amount paid to John Kelly Company:		
Execution of court	1,147 36	
		<u>\$2,100 00</u>

Harvard street, from Morton street to Deering road. (Unfinished work from 1915.)

Engineering	\$8 50	
Advertising	2 03	
Lumber	1 34	
Labor, roadway excavating	94 17	
Teaming	389 45	
		<u>\$495 49</u>

Harwood street, from Willowwood street to Lucerne street. Length, 725 linear feet. Area, 2,122 square yards. Edgestone set, roadway paved with asphalt on a concrete base and artificial stone sidewalks constructed. (Work unfinished.)

Engineering	\$77 66	
Inspection	184 47	
Engineering expense	2 40	
Advertising	11 44	
Edgestone, 1,390 feet straight, 64 feet circular and 2 small corners	900 77	
Lumber	1 82	
Labor, making templets	5 00	
Labor, handling stock	16 96	
Teaming	2 50	
Amount paid James Doherty, under contract:		
Removing trees, etc.	\$10 00	
700 cubic yards earth excavation @ 40c.	280 00	
39 cubic yards water box excavation @ \$1	39 00	
		<u>\$1,203 02</u>
<i>Carried forward</i>	\$329 00	\$1,203 02

<i>Brought forward</i>	\$329 00	\$1,203 02
2 cubic yards rock excavation @ \$5	10 00	
1,350 linear feet straight edgestone and corners hauled and set @ 18c.	243 00	
64 linear feet circular edgestone set @ 11c.	7 04	
34 linear feet existing edgestone reset @ 11c.	3 74	
15 square yards existing granite block paving relaid, grout joints, @ 40c,	6 00	
6 square yards paving relaid, grout joints, including concrete base, @ \$1.20	7 20	
2,112 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$2.22	4,688 64	
5,000 square feet artificial stone sidewalks furnished and laid (unfinished) @ 7c.,	350 00	
7 covers reset @ \$3	21 00	
	<hr/>	
	\$5,665 62	
Less 15 per cent retained	849 84	
	<hr/>	
		4,815 78
		<hr/>
		\$6,018 80
Credit: Flagging, old, North River		14 22
		<hr/>
		<u>\$6,004 58</u>
<i>Haslet street</i> , from Amherst street to Metcalf street. (Work done in 1915.)		
Engineering expense		<u>\$0 30</u>
<i>Helen street</i> , from Talbot avenue to Bernard street. (Work done in 1915.)		
Sand	\$112 25	
Gravel	3 92	
Chemical analysis of asphalt	4 00	
	<hr/>	
		<u>\$120 17</u>
<i>Herbert street</i> , from Park street to West Tremlett street. (Work done in 1915.)		
Engineering expense		<u>\$0 15</u>
<i>Hillcrest street</i> , from Elgin street to Temple street. Straight edgestone set, artificial stone sidewalks constructed and concrete base laid. (Work unfinished.)		
Engineering	\$120 31	
Inspection	122 47	
Engineering expense	2 60	
Edgestone, 935 feet straight and 2 small corners	680 56	
Labor, chemist	5 11	
Labor, handling stock	14 12	
	<hr/>	
<i>Carried forward</i>		\$945 17

<i>Brought forward</i>		\$945 17	
Amount paid Central Construction Company, under contract:			
800 cubic yards earth excava- tion @ 55c.	\$440 00		
920 linear feet straight edge- stone and corners hauled and set @ 17c.,	156 40		
1,450 square yards concrete base, bituminous con- crete binder and as- phalt wearing surface furnished and laid (un- finished) @ 68c.	986 00		
5,500 square feet artificial stone sidewalks furnished and laid @ 11½c.	646 25		
	<u>\$2,228 65</u>		
Less 15 per cent retained .	334 30		
		<u>1,894 35</u>	
			<u>\$2,839 52</u>

Hill Top street, from Granite avenue to Hallet street. Roadway rough
graded. (Work unfinished.)

Engineering	\$214 02		
Inspection	145 00		
Engineering expense	3 80		
Advertising	75		
Edgestone, 302 feet 6 inches straight . . .	217 80		
Teaming	371 25		
Amount paid Martino DeMatteo, under con- tract:			
1,800 cubic yards earth excava- tion @ 75c.	\$1,350 00		
800 cubic yards filling fur- nished @ \$1	800 00		
	<u>\$2,150 00</u>		
Less 15 per cent retained .	322 50		
		<u>1,827 50</u>	
			<u>\$2,780 12</u>

Homestead street, from Elm Hill avenue to Humboldt avenue. Edgestone
set, roadway rough graded and artificial stone sidewalks partly
constructed. (Work unfinished.)

Engineering	\$177 81		
Inspection	137 07		
Engineering expense	7 35		
Advertising	3 13		
Edgestone, 2,125 feet 2 inches straight and 2 small corners	1,537 42		
Lumber	84		
Labor, making templets	6 50		
Labor, handling stock	29 00		
Amount paid to Central Construction Com- pany, under contract:			
1,000 cubic yards earth excava- tion @ 55c.	\$550 00		
	<u>\$550 00</u>		
<i>Carried forward</i>		<u>\$1,899 12</u>	

<i>Brought forward</i>	\$550 00	\$1,899 12	
21 cubic yards water box excavation @ \$2	42 00		
1 cubic yard rock excavation @ \$5	5 00		
1,800 linear feet straight edgestone and corners hauled and set @ 18c.	324 00		
19 linear feet existing edgestone reset @ 10c.	1 90		
5,570 square feet artificial stone sidewalks furnished and laid (unfinished) @ 9c.,	501 30		
8 covers reset @ \$3	24 00		
	<hr/>		
	\$1,448 20		
Less 15 per cent retained	217 23		
	<hr/>		
		1,230 97	
		<hr/>	
			<u>\$3,130 09</u>

Hubert street, from Shawmut avenue to Westminster street. Length, 450 linear feet. Area, 1,275 square yards. Edgestone set, roadway paved with asphalt pavement on a concrete base and artificial stone sidewalks constructed.

Engineering		\$150 12	
Inspection		146 84	
Engineering expense		7 10	
Advertising		3 13	
Edgestone, 150 feet straight		108 00	
Lumber		1 82	
Labor, making templets		7 50	
Labor, handling stock		2 25	
Amount paid Central Construction Company, under contract:			
466 cubic yards earth excavation @ 55c.	\$256 30		
149 linear feet straight edgestone and corners hauled and set @ 18c.	26 82		
38 linear feet circular edgestone set @ 11c.	4 18		
740 linear feet existing edgestone reset @ 10c.	74 00		
1,275 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.60	2,040 00		
20 square yards existing brick sidewalks relaid @ 30c.,	6 00		
4,705 square feet artificial stone sidewalks furnished and laid @ 12½c.	588 13		
	<hr/>		
	\$2,995 43		
Less 15 per cent retained,	449 31		
	<hr/>		
		2,546 12	
		<hr/>	
		\$2,972 88	
		26 00	
		<hr/>	
Credit: Blocks, 1,300 old granite			<u>\$2,946 88</u>

Intervale street, from Columbia road to Normandy street. (Work done in 1915.)

Engineering expense \$0 15

Jones avenue, from Mascot street to Ballou avenue. Length, 993 linear feet. Asphalt pavement laid on a 6-inch Portland cement concrete base. Edgestone set and artificial stone sidewalks constructed.

Engineering	\$131 51
Inspection	166 54
Engineering expense	4 20
Advertising	3 25
Edgestone, 689 feet straight	403 02
Blocks, 330 old granite	6 60
Lumber	2 73
Labor, handling stock	10 33
Teaming	1 25

Amount paid James Doherty, under contract:

Removing trees, bushes, etc.	\$20 00	
672 cubic yards earth excavation @ 37c.	248 64	
57 cubic yards water box excavation @ \$1	57 00	
22 cubic yards rock excavation @ \$5	110 00	
800 cubic yards gravel filling furnished @ 45c.	360 00	
1,870 linear feet straight edgestone and corners hauled and set @ 16c.,	299 20	
35 linear feet circular edgestone set @ 12c.	4 20	
78 linear feet existing edgestone reset @ 11c.	8 58	
24 square yards existing granite block paving relaid @ 40c.	9 60	
2 square yards existing granite block paving relaid, grout joints, including concrete base, @ \$1.20	2 40	
2,890 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$2.23	6,444 70	
11,939 square feet artificial stone sidewalks furnished and laid @ 10c.	1,193 90	
278 square feet artificial stone driveways furnished and laid @ 10c.	27 80	
16 covers reset @ \$3	48 00	
Extra work — Build temporary fence as directed:		
40 hours' labor @ 25c.	10 00	
8 hours, carpenter, @ 50c.,	4 00	
<i>Carried forward</i>	<u>\$8,848 02</u>	<u>\$729 43</u>

<i>Brought forward</i>	\$8,848 02	\$729 43
8 hours, foreman, @ 62½c.	5 00	
Plus 15 per cent on \$19	2 85	
10 posts @ 40c.	4 00	
170 feet B. M. spruce @ 3c.	5 10	
10 pounds nails @ 5c.	50	
Teaming	35	
Extra work — Raise man-hole at White terrace:		
8 hours, mason, @ 62½c.	5 00	
8 hours, tender, @ 30c.	2 40	
8 hours' labor @ 30c.	2 40	
Plus 15 per cent on \$9.80,	1 47	
375 bricks @ \$10 per M.	3 75	
6 bags cement @ 50c.	3 00	
6 cubic feet sand @ 5c.	30	
	<hr/>	
	8,884 14	
		<hr/>
		<u>\$9,613 57</u>

Jones avenue, footway, from Norfolk street to Ballou avenue. (Work not started.)

Engineering \$227 68

Juliette street, from Fox street to Homes avenue. (Work done in 1915.)

Engineering expense \$0 45

Kenney street, from Day street 500 feet northwesterly. (Work done in 1915.)

Chemical analysis \$4 00

Kenton street, from Washington street easterly. (Work not started.)

Engineering expense	\$61 33	
Advertising	2 57	
	<hr/>	<u>\$63 90</u>

Kittredge street, from Cornell street to Beach street. Length, 549 linear feet. Roadway paved with bitulithic pavement on a 6-inch Portland cement concrete base. Edgestone set and artificial stone sidewalks constructed.

Engineering	\$110 92
Inspection	255 50
Engineering expense	1 95
Advertising	9 40
Edgestone, 1,008 feet 6 inches straight, 6 small corners and 37 feet 7 inches circular	653 62
Blocks	6 60
Lumber	3 64
Labor, handling stock	15 29
Amount paid to Charles J. Jacobs Company, under contract:	
Removing trees, bushes, etc.	\$0 00
894 cubic yards earth excavation @ 40c.	357 60
3 cubic yards rock excavation @ \$5	15 00
	<hr/>
<i>Carried forward</i>	<u>\$372 60</u>
	<u>\$1,056 92</u>

<i>Brought forward</i>	\$372 60	\$1,056 92
1,028 linear feet straight edge-stone and corners hauled and set @ 20c.	205 60	
38 linear feet circular edge-stone set @ 15c.	5 70	
16 linear feet existing edge-stone reset @ 15c.	2 40	
9 square yards existing granite block paving relaid @ 40c.	3 60	
10 square yards granite block paving hauled and laid, grout joints, including concrete base, @ \$1.50,	15 00	
1,588 square yards concrete base and bitulithic wearing surface furnished and laid @ \$2.20	3,493 60	
6,641 square feet artificial stone sidewalks furnished and laid @ 10½c.	697 31	
167 square feet artificial stone driveways furnished and laid @ 12½c	20 88	
9 covers reset @ \$3	27 00	
Extra work — Regulate manhole cover over six (6) inches:		
3 hours, mason, @ 75c.	2 25	
2½ hours' labor @ 30c.	75	
Plus 15 per cent on \$3	45	
75 brick @ \$12 per M	90	
1½ bags cement @ 60c.	90	
4 cubic feet sand @ 5c.	20	
3 square yards concrete base @ \$1	3 00	
Extra work — Haul circular edgestone from the corner of Cornell and Washington streets:		
½ day, foreman, @ \$5	83	
½ day's labor @ \$2.40	2 10	
Plus 15 per cent on \$2.93	44	
½ day, double team, @ \$6	2 00	
	<hr/>	4,857 51
		<hr/> <u>\$5,914 43</u>

Langley road, from Breck avenue 571 feet easterly. (Work not started.)

Engineering	\$29 83
Advertising	75
	<hr/>
	<u>\$30 58</u>

Lithgow street, between Talbot avenue and Wainwright street. Length, 683 linear feet. Area, 2,036 square yards. Edgestone set and street rough graded. (Unfinished.)

Engineering	\$115 92
Inspection	54 67
Advertising	1 08
	<hr/>
<i>Carried forward</i>	\$171 67

<i>Brought forward</i>		\$171 67	
Engineering expense		3 85	
Edgestone, 900 feet straight and 2 small corners		655 30	
Labor, handling stock		13 59	
Amount paid Thomas H. Corrigan, under contract:			
820 cubic yards earth excavation made and used on Lithgow street @ 35c.,	\$287 00		
2,550 cubic yards earth excavation made and hauled to Hill Top street @ 59c. .	1,504 50		
60 cubic yards rock excavation @ \$5	300 00		
	<hr/>		
	\$2,091 50		
Less amount paid in 1915,	1,730 45		
	<hr/>		
		361 05	
Amount paid Central Construction Company, under contract:			
500 cubic yards earth excavation @ 55c.	\$275 00		
890 linear feet straight edgestone and corners hauled and set @ 18c.	160 20		
20 linear feet circular edgestone set @ 11c.	2 20		
300 linear feet existing edgestone reset @ 10c.	30 00		
	<hr/>		
	\$467 40		
Less 15 per cent retained	70 11		
	<hr/>		
		397 29	
		<hr/>	
			<u>\$1,602 75</u>

Lorenzo street, from Walnut street to Woodworth street. (Work done in 1915.)

Engineering expenses	<u>\$0 10</u>
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Lorette street, from Centre street to Hillcrest street. Straight edgestone set, artificial stone sidewalks constructed and roadway paved with asphalt on a concrete base.

Engineering	\$100 71
Inspection	110 63
Engineering expense	3 55
Edgestone, 960 feet straight, 1 small corner and 40 feet circular	730 85
Blocks	4 30
Lumber	3 11
Labor, chemist	5 11
Labor, making templets	5 00
Labor, handling stock	14 45
Teaming	21 33
Amount paid Central Construction Company, under contract:	
680 cubic yards earth excavation @ 55c.	\$374 00
	<hr/>
<i>Carried forward</i>	\$374 00

\$999 04

<i>Brought forward</i>	\$374 00	\$999 04
960 linear feet straight edge-stone and corners hauled and set @ 17c.	163 20	
40 linear feet circular edge-stone set @ 15c.	6 00	
3 square yards existing granite block paving relaid, grout joints, including concrete base, @ \$1.25,	3 75	
1,400 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.58,	2,212 00	
6,000 square feet artificial stone sidewalks furnished and laid @ 11½c.	705 00	
4 covers reset @ \$3	12 00	
	<hr/>	
	\$3,475 95	
Less 15 per cent retained	521 39	
	<hr/>	
		2,954 56
		<hr/>
		<u>\$3,953 60</u>

Lorne street, from Harvard street northwesterly. (Work not started.)

Engineering..	\$101 43	
Engineering expense	1 20	
Advertising	4 62	
	<hr/>	
		<u>\$107 25</u>

Lucas street, between Washington street and Shawmut avenue. Length, 327 linear feet. Area, 254 square yards. Roadway paved with scoria blocks on a concrete base, edgestone set and artificial stone sidewalks laid. (Unfinished work from 1915.)

Engineering	\$11 71	
Inspection	14 00	
Engineering expense	35	
Amount paid to John Kelly Company, under contract:		
920 square feet artificial stone sidewalks furnished and laid @ 14½c.	\$133 40	
7.1 cubic yards extra concrete furnished and placed @ \$3.50	24 85	
	<hr/>	
		158 25
		<hr/>
		<u>\$184 31</u>

Lyford street, from Woodrow avenue to Franklin Field. (Work done in 1915.)

Engineering	\$7 19	
Inspection	10 50	
Engineering expense	10	
Amount paid to Charles J. Jacobs Company, under contract:		
Final payment on contract, being balance due,	63 17	
	<hr/>	
		<u>\$80 96</u>

Matchett street, from Washington street 843 feet northeasterly. Length, 852 linear feet. Area, 9,959 square feet. Edgestone was set and artificial stone sidewalks constructed. (Work unfinished.)

Engineering	\$60 35	
Inspection	102 50	
Engineering expense	3 05	
Advertising	9 10	
Edgestone	29 41	
Nails	2 75	
Lumber	79 19	
Gravel	1 00	
Labor, edgestone setting	18 12	
Teaming	25 51	
Amount paid Charles J. Jacobs Company, under contract:		
9,831 square feet artificial stone sidewalks furnished and laid @ 13c.	\$1,278 03	
128 square feet artificial stone driveways furnished and laid @ 15c.	19 20	
Extra work — Remove edgestone already set and construct new drive- ways:		
4 hours, paver, @ 62½c.	2 50	
15 hours' labor @ 35c.	5 25	
Plus 15 per cent on \$7.75	1 16	
1 day, double team, @ \$6	6 00	
	<hr/>	
	1,312 14	
	<hr/>	<u>\$1,643 12</u>

Melvinside terrace, from Dorchester avenue to Minton street. (Work done in 1915.)

Engineering expense	<u>\$0 10</u>
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Mendon Park, from Bourneside street to Upland avenue. (Work not started.)

Advertising	<u>\$9 00</u>
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Minton street, from Amory street to Brookside avenue. (Work not started.)

Engineering	\$38 50	
Engineering expense	1 15	
	<hr/>	<u>\$39 65</u>

Montebello road, from Forest Hills street to Walnut avenue. Length, 1,087 linear feet. Area, 3,060 square yards. Edgestone set, bitulithic pavement laid and artificial stone sidewalks constructed.

Engineering	\$159 14	
Inspection	273 00	
Engineering expense	3 80	
Edgestone, 404 feet straight, 12 feet cir- cular and 4 small corners	266 99	
Blocks	4 60	
Crushed stone	21 32	
Lumber	2 58	
Steam roller	13 00	
	<hr/>	
Carried forward	\$744 43	

<i>Brought forward</i>		\$744 43
Labor, handling stock		5 81
Labor, making templets		8 25
Teaming		50 00
Labor, spreading stone and excavating roadway		85 02
Amount paid to Martino DeMatteo, under contract:		
Removing trees, etc.	\$1 00	
1,154 cubic yards earth excavation @ 40c.	461 60	
144 cubic yards rock excavation @ \$3.50	504 00	
2,120 linear feet straight edge-stone and corners hauled and set @ 16c.	339 20	
23 linear feet circular edge-stone set @ 12c.	2 76	
41 linear feet existing edge-stone reset @ 12c.	4 92	
6 square yards existing granite block paving relaid, gravel joints, @ 35c.	2 10	
5 square yards granite block paving hauled and laid, grout joints, including concrete base, @ 00c.	00	
6 square yards existing flagging crosswalks relaid, gravel joints, @ 35c.	2 10	
3,051 square yards bitulithic wearing surface furnished and laid, including concrete base, @ \$2.13	6,498 63	
10 square yards existing brick sidewalks relaid @ 35c.	3 50	
5,080 square feet artificial stone sidewalks furnished and laid @ 11c.	558 80	
365 square feet artificial stone driveway furnished and laid @ 12c.	43 80	
17 covers reset @ \$3	51 00	
468 square yards loam space graded and seeded @ 9c.	42 12	
77 cubic yards loam furnished and placed @ 75c.	57 75	
Extra work — Remove cinders already placed:		
1½ days, foreman, @ \$4	4 50	
8½ days' labor @ \$2.75	22 69	
Plus 15 per cent on \$27.19	4 08	
2½ days, double team, @ \$6	12 75	
<i>Carried forward</i>	\$8,617 30	\$893 51

PUBLIC WORKS DEPARTMENT.

253

<i>Brought forward</i>	\$8,617 30	\$893 51
7 D. H. cinders @ \$2.75	19 25	
	<hr/>	
	\$8,636 55	
Less amount paid in		
1915	626 79	
	<hr/>	
		8,009 76
		<hr/>
		<u>\$8,903 27</u>

Moraine street, from South Huntington avenue to Jamaica way. (Work not started.)

Engineering	\$184 61	
Engineering expense	80	
Advertising	4 35	
Labor, stonecutter	42 00	
	<hr/>	
		<u>231 76</u>

Moreland street, from Dennis street to Brook avenue. (Work not started.)

Engineering	<u>\$8 95</u>
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Morton street, from Norfolk street to Midland Division, New York, New Haven & Hartford Railroad Bridge. Length, 466 linear feet. Area, 2,712 square yards. Edgestone set and bituminous macadam roadway constructed by department force; 1,538 cubic yards filling furnished and artificial stone walks constructed by contract. (Work unfinished.)

Engineering	\$174 81
Inspection	63 47
Engineering expense	5 80
Advertising	6 54
Nails	25
Edgestone, 479 feet straight and 30 feet 8½-inch circular	370 29
Road oil, 6,089 gallons	1,094 94
Filling	19 00
Crushed stone, 894 tons	1,155 22
Lumber	9 39
Gravel	21 29
Steam roller	249 00
Labor, handling stock	2 09
Removing trees	50 00
Labor, edgestone excavating	113 32
Labor, edgestone setting	156 63
Labor, roadway excavating	73 77
Labor, roadway, spreading stone	456 33
Labor, gravel and crushed stone sidewalks	36 26
Labor, repairing fence and bulkhead	19 58
Labor, building fence	108 66
Labor, building plank walks	65 50
Teaming	540 35
Amount paid William J. Rafferty & Co., under contract:	
7,499 square feet artificial stone sidewalks furnished and laid @ 17½c.	\$1,331 07
15 per cent retained	199 66
	<hr/>
	1,131 41

Carried forward \$5,923 90

<i>Brought forward</i>		\$5,923 90	
Amount paid to William J. Barry, under contract:			
1,538 cubic yards filling furnished @ 69c.	\$1,061 22		
15 per cent retained	159 18		
		902 04	
		\$6,825 94	
Credit: Blocks, 2,925 old granite		58 50	
			<u>\$6,767 44</u>
<i>Mt. Ida road, from Marie street to Ronan park. Rough graded roadway. (Work unfinished.)</i>			
Engineering		\$49 68	
Engineering expense		95	
Edgestone, 250 feet 1 inch straight		180 06	
Labor, handling stock		3 75	
Labor, excavating roadway		1,081 72	
Teaming		301 95	
			<u>\$1,618 11</u>
<i>Neptune road, from Bennington street to Boston, Revere Beach & Lynn Railroad. (Work not started.)</i>			
Engineering		\$324 92	
Engineering expense		3 30	
Advertising		4 60	
		\$332 82	
Credit: Old blocks		8 00	
			<u>\$324 82</u>
<i>Nevada street, from Wilmington avenue to Fairmount street. (Work not started.)</i>			
Engineering			<u>\$4 50</u>
<i>Normandy street, from Intervale street to Devon street. Length, 490 linear feet. Area, 1,413 square yards. Asphalt roadway constructed, and artificial stone sidewalks constructed by contractor. Edgestone set and roadway rough graded.</i>			
Engineering		\$50 36	
Inspection		84 50	
Engineering expense		85	
Advertising		3 12	
Chemical analysis		7 60	
Steam roller		45 50	
Gravel		5 88	
Labor, excavating roadway		566 62	
Teaming		262 50	
Amount paid Central Construction Company, under contract:			
300 cubic yards earth excavation @ 55c.	\$165 00		
1,413 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.60	2,260 80		
Carried forward	\$2,425 80	\$1,026 93	

<i>Brought forward</i>	\$2,425 80	\$1,026 93	
550 square feet artificial stone sidewalks furnished and laid @ 12½c.	687 50		
2 covers reset @ \$3	6 00		
	<u>\$3,119 30</u>		
Less 15 per cent retained	467 90		
	<u>2,651 40</u>		
		<u>\$3,678 33</u>	
<i>North Beacon street, from Cambridge street to Market street. (Work not started.)</i>			
Engineering		\$223 08	
Advertising		2 03	
		<u>\$225 11</u>	
<i>Oakland street, from River street to Rockdale street. (Work done in 1915.)</i>			
Engineering expense		\$0 45	
<i>Orchardfield street, from Dorchester avenue to Freeport street. Length, 814 linear feet. Area, 1,270 square yards. Edgestone set, roadway paved with asphalt. (Work unfinished.)</i>			
Engineering		\$74 95	
Inspection		128 31	
Engineering expense		3 25	
Advertising		3 12	
Edgestone, 1,500 feet straight, 2 large corners and 35.4 feet circular		1,140 44	
Lumber		3 15	
Labor, making templates		6 50	
Labor, handling stock		18 44	
Labor, relaying brick walks		9 00	
Teaming		5 00	
Amount paid Central Construction Company, under contract:			
550 cubic yards earth excava- tion @ 55c.	\$302 50		
1,500 linear feet straight edge- stone and corners hauled and set @ 18c.	270 00		
37 linear feet circular edge- stone set @ 11c.	4 07		
50 linear feet existing edge- stone reset @ 10c.	5 00		
1,270 square yards concrete base, bituminous concrete binder and asphalt wearing surface fur- nished and laid @ \$1.60,	2,032 00		
8 covers reset @ \$3	24 00		
	<u>\$2,637 57</u>		
Less 15 per cent retained	395 64		
	<u>2,241 93</u>		
		<u>\$3,634 09</u>	
Credit: Blocks, old crossing		11 38	
		<u>\$3,622 71</u>	

Orleans street, from Gove street to Porter street. Length, 638 feet. Area, 2,482 square yards. One thousand one hundred and eighty-five square yards roadway excavated; 1,466 square yards concrete base laid, 6 inches deep; 2,508 square yards granite block paving and crosswalk laid with cement grout joints; 550 square yards gravel and 343 square yards crushed stone sidewalks. (Unfinished work from 1915.)

Engineering	\$12 82	
Lumber	25 22	
Blocks, 55,147 granite	2,867 64	
Bricks, 12,500 sidewalk	156 25	
Cement, 536 barrels Portland	857 03	
Gravel, 51 cubic yards	51 00	
Sand, 528 cubic yards	568 32	
Crushed stone, 310.38 tons	433 03	
Gasolene and oil	14 45	
Labor, sidewalk excavation	40 67	
Labor, brick sidewalk laying	42 95	
Labor, spreading stone and gravel on side- walks	70 68	
Labor, edgestone resetting	4 75	
Labor, crosswalk excavating	13 92	
Labor, crosswalk laying	10 88	
Labor, making concrete base	390 12	
Labor, roadway excavating	463 27	
Labor, roadway paving	1,259 96	
Teaming	317 50	
		<u>\$7,600 46</u>

Overland street, from Brookline street to Boston & Albany Railroad.
(Work not started.)

Engineering	\$112 75	
Engineering expense	1 10	
		<u>\$113 85</u>

Parkton road, from Perkins street to Perkins street. Five hundred and three feet circular edgestone set, 1,174 feet straight edgestone set, 394 feet straight edgestone reset, 2,052 square yards concrete roadway, 6 inches deep, constructed and 1,479 linear feet block gutters laid..
(Work unfinished.)

Engineering	\$141 25	
Inspection	4 00	
Advertising	1 10	
Steam roller, rolling	39 00	
Steam roller, picking	104 00	
Blocks, old granite	155 40	
Engineering expense	4 90	
Crushed stone, 399 tons	433 51	
Hydrated lime, 8 tons	100 00	
Expansion joint, 600 feet	30 34	
Edgestone, 118 feet 8 inches straight, 1 small corner and 526 feet 6 inches circular	1,362 23	
Cement, 519 barrels	1,028 50	
Sand, 233 cubic yards	228 34	
Lumber	71 13	
Wire mesh	70 35	
Gasolene	7 40	
Canvas	79 05	
Tar paper	10 11	
		<u>\$3,870 61</u>
<i>Carried forward</i>		

<i>Brought forward</i>	\$3,870 61	
Pipe, iron, steel, etc., for templet	32 54	
Labor, making templets	5 50	
Labor, handling stock	19 45	
Labor, edgestone excavating	717 69	
Labor, edgestone setting	509 29	
Labor, excavating roadway	850 88	
Labor, laying concrete and mixing	2,536 50	
Labor, gravel sidewalks	46 41	
Concrete mixers, hire of	322 00	
Teaming	732 75	
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	\$9,643 62	
Credit: Old flagging	6 84	
	<hr/>	
		<u>\$9,636 78</u>

Patten street, from Hyde Park avenue to Bourne street. (Work not started.)

Engineering	\$37 61	
Advertising	2 78	
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		<u>\$40 39</u>

Peacevale road, from Norfolk street to Dunbar avenue. (Work done in 1915.)

Engineering expense	\$0 10	
Chemical analysis	4 00	
	<hr/>	
		<u>\$4 10</u>

Percival street, from Fox street to Marie street. (Work done in 1915.)

Engineering expense	\$0 15	
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		<u>\$0 15</u>

Perham street, from Vermont street to the railroad. (Work not started.)

Engineering	\$83 43	
Advertising	4 60	
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		<u>\$88 03</u>

Porter street, from Cottage street across Geneva street. (Work done in 1914.)

Engineering	\$7 18	
Engineering expense	21	
Advertising	2 03	
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		<u>\$9 42</u>

Prince street, from Pond street to the Arborway. (Work done in 1915.)

Chemical analysis	\$4 00	
	<hr/>	
		<u>\$4 00</u>

Public Alley No. 902, from Deerfield street to Raleigh street. (Work not started.)

Engineering	\$57 00	
Engineering expense	50	
Advertising	3 25	
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		<u>\$60 75</u>

* *Public Alley No. 903*, from Haviland street to Public Alley No. 904.
Length, 426 linear feet. Edgestone set, artificial stone sidewalks constructed and roadway paved with Hassam block pavement on a 6-inch Hassam concrete base.

Engineering	\$54 62	
Inspection	135 15	
Engineering expense	2 20	
Advertising	4 29	
Edgestone, 551 feet straight and 21 feet circular	348 78	
Bricks	6 25	
Labor, handling stock	5 68	
Amount paid James Doherty, under contract:		
Removing trees, bushes, etc.,	\$0 50	
206 cubic yards earth excavation @ 67c.	138 02	
546 linear feet straight edgestone hauled and set @ 17c.	92 82	
14 linear feet circular edgestone set @ 14c.	1 96	
26 linear feet existing edgestone reset @ 14c.	3 64	
556 linear feet concrete backing for edgestone @ 16c.	88 96	
10 square yards existing granite block paving relaid @ 40c.	4 00	
403 square yards Hassam block pavement furnished and laid, including concrete base, with grout joints, @ \$3.05	1,229 15	
77 square feet artificial stone sidewalks furnished and laid @ 20c.	15 40	
5 covers reset @ \$3	15 00	
Extra work — Cut sheet piling left in sewer trench:		
38 hours' labor @ 30c.	11 40	
Plus 15 per cent on \$11.40	1 71	
Extra work — Remove and construct driveways as directed:		
4 hours, stonecutter, @ 62½c.,	2 50	
4 hours, paver, @ 62½c.	2 50	
41 hours' labor @ 30c.	12 30	
Plus 15 per cent on \$17.30	2 60	
12 hours, double team, @ 75c.,	9 00	
24 cubic feet concrete @ 18½c.,	4 44	
3 bags cement @ 50c.	1 50	
Extra work — Regulate catch-basin and manhole covers more than six (6) inches:		
4 hours, mason, @ 62½c.	2 50	
4 hours' labor @ 30c.	1 20	
Plus 15 per cent on \$3.70	56	
50 bricks @ 1c.	50	
Carried forward	\$1,642 16	\$556 97

* Done in connection with Public Alley No. 904.

<i>Brought forward</i>	\$1,642 16	\$556 97
1½ bags cement @ 50c.	75	
5 cubic feet sand @ 5c.	25	
	<hr/>	1,643 16
		<hr/>
		\$2,200 13
Credit: Blocks, 3,150 old granite		63 00
		<hr/>
		<u>\$2,137 13</u>

* *Public Alley No. 904*, from Bickerstaff street to Public Alley No. 903.
Length, 99 linear feet. Edgestone set, artificial stone sidewalks
constructed and roadway paved with Hassam block pavement on a
Hassam concrete base.

Engineering	\$40 68	
Inspection	73 50	
Engineering expense	30	
Advertising	4 29	
Edgestone, 160 feet 6 inches straight and 21 feet circular	120 39	
Labor, handling stock	1 34	
Amount paid James Doherty, under contract:		
Removing trees, bushes, etc.,	\$0 50	
68 cubic yards earth excava- tion @ 67c.	45 56	
159 linear feet straight edgestone and corners hauled and set @ 17c.	27 03	
28 linear feet circular edgestone set @ 14c.	3 92	
12 linear feet existing edgestone reset @ 14c.	1 68	
185 linear feet concrete backing for edgestone @ 16c.	29 60	
2 linear feet existing granite block paving relaid @ 40c.	80	
96 linear feet Hassam block pavement furnished and laid, including concrete base and grout joints, @ \$3.05	292 80	
16 linear feet existing brick sidewalks relaid @ 30c.	4 80	
	<hr/>	406 69
Extra work — Cut sheet piling left in sewer trench:		
24 hours' labor @ 30c.	\$7 20	
Plus 15 per cent on \$7.20	1 08	
	<hr/>	8 28
Extra work — Regulate catch-basin and manhole covers more than six (6) inches:		
4 hours, mason, @ 62½c.	\$2 50	
4 hours' labor @ 30c.	1 20	
	<hr/>	3 70
Plus 15 per cent on \$3.70		55
50 bricks @ 1c.		50
1½ bags cement @ 50c.		75
5 cubic feet sand @ 5c.		25
		<hr/>
<i>Carried forward</i>	\$661 22	

* Done in connection with Public Alley No. 903.

<i>Brought forward</i>		\$661 22	
Extra work — Lay flagging crosswalks with grout joints where directed on existing concrete base:			
4 square yards flagging crosswalks laid @ 55c.	\$2 20		
2 square yards granite block paving laid @ 55c.	1 10		
		3 30	
			<u>\$664 52</u>
<i>Ralston street</i> , from Dorchester avenue to Old Colony avenue. Filling furnished. (Work unfinished.)			
Engineering		\$156 58	
Inspection		69 03	
Engineering expense		6 15	
Labor, spreading filling		146 50	
			<u>\$378 26</u>
<i>Randall street</i> , from Albany street to Harrison avenue. Length, 636 linear feet. Area, 1,511 square yards. The edgestone and concrete base were furnished and laid by the department forces. The contractor furnished and laid the artificial stone sidewalk and put on an asphalt wearing surface. (Unfinished work from 1915.)			
Engineering		\$90 00	
Inspection		133 00	
Engineering expense		3 95	
Advertising		3 14	
Lumber		3 82	
Edgestone, 17 feet straight and 4 small corners		17 10	
Flagging, 139 feet 6 inches granite		111 60	
Crushed stone, 250.5 tons		281 05	
Cement, 217 barrels		375 44	
Sand, 125 cubic yards		167 51	
Gravel, 40 cubic yards		32 48	
Labor, handling stock		2 18	
Labor, street cleaning		5 00	
Labor, concrete base		853 11	
Labor on crushed stone walks		62 25	
Labor on roadway excavating		340 19	
Labor, edgestone excavating		118 93	
Labor, edgestone resetting		173 04	
Blocks		12 50	
Teaming		124 75	
Bitulithic repairs		95 16	
Amount paid Central Construction Company, under contract:			
56 square yards existing granite block paving relaid, gravel joints, @ 40c.	\$22 40		
24 square yards granite block paving hauled and laid, grout joints, including concrete base (unfinished), @ 90c.	21 60		
<i>Carried forward</i>	\$44 00	\$3,006 20	

<i>Brought forward</i>	\$44 00	\$3,006 20	
30 square yards flagging cross-walks hauled and laid, grout joints, including concrete base (unfinished), @ \$1	30 00		
35 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.60	56 00		
1,476 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid (unfinished) @ \$1.10	1,623 60		
5,468 square feet artificial stone sidewalks furnished and laid @ 12½c.	683 50		
	<u>\$2,437 10</u>		
Less 15 per cent retained,	365 56		
		<u>2,071 54</u>	
		\$5,077 74	
Credit: Old edgestone and flagging		25 65	
		<u>\$5,052 09</u>	

Raven street, from Crescent avenue southerly. (Work done in 1915.)

Engineering expense	<u>\$0 05</u>
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Redfield street, from Port Norfolk street to Walnut street. (Work done in 1915.)

Engineering	\$8 50	
Crushed stone, 91 tons	109 38	
Teaming	16 50	
	<u>\$134 38</u>	

Richwood street, from Centre street to Montview street. (Work not started.)

Engineering	\$22 32	
Advertising	2 56	
Labor on plank walk	46 00	
	<u>\$70 88</u>	

Ripley road, from Vassar street to Harvard street. Length, 685 linear feet. Area, 1,980 square yards. Edgestone set, roadway paved with asphalt pavement on a concrete base and artificial stone sidewalks constructed. (Work unfinished.)

Engineering	\$106 60	
Inspection	156 75	
Engineering expense	4 05	
Advertising	3 12	
Edgestone, 1,065 feet straight and 266 feet 9 inches circular	1,102 96	
Lumber	1 92	
Labor, making templets	5 50	
	<u>\$1,380 90</u>	
<i>Carried forward</i>		

<i>Brought forward</i>		\$1,380 90	
Labor, handling stock		17 50	
Teaming		2 50	
Flagging, 102 feet 1 inch granite		81 67	
Amount paid Central Construction Company, under contract:			
800 cubic yards earth excavation @ 55c.	\$440 00		
1,050 linear feet straight edgestone and corners hauled and set @ 18c.	189 00		
250 linear feet circular edgestone set (unfinished) @ 10c.	25 00		
1,920 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.60	3,072 00		
6 covers reset @ \$3	18 00		
	<hr/>	3,744 00	
Less 15 per cent retained,	561 60		
	<hr/>	3,182 40	
		<hr/>	<u>\$4,664 97</u>

Rosewood street, from Oakland street to Randolph road. Length, 1,529 linear feet. Area, 4,417 square yards. Edgestone set, roadway paved with asphalt on a concrete base and artificial stone sidewalks constructed. (Unfinished work from 1915.)

Engineering	\$217 99	
Inspection	343 00	
Engineering expense	3 95	
Advertising	2 04	
Edgestone, 1,124 feet straight and 10 small corners	672 97	
Lumber	3 55	
Labor, handling stock	17 37	
Teaming	6 00	
Amount paid to John Kelly Company, under contract:		
Removing trees, etc.	\$25 00	
2,062 cubic yards earth excavation @ 39c.	804 18	
39 cubic yards water box excavation @ 50c.	19 50	
172 cubic yards rock excavation @ \$2	344 00	
2,997 linear feet straight edgestone and corners hauled and set @ 19c.,	569 43	
19 linear feet circular edgestone set @ 10c.	1 90	
27 linear feet existing edgestone reset @ 10c.	2 70	
14 square yards existing granite block paving relaid, gravel joints, @ 25c.	3 50	
<i>Carried forward</i>	<hr/>	<hr/>
	\$1,770 21	\$1,266 87

<i>Brought forward</i>	\$1,770 21	\$1,266 87
7 square yards existing granite block paving relaid, grout joints, including concrete base, @ 70c.	4 90	
4,405 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$2.19	9,646 95	
17,240 square feet artificial stone sidewalks furnished and laid @ 11c.	1,896 40	
421 square feet artificial stone driveways furnished and laid @ 11c.	46 31	
13 covers reset @ \$3	39 00	
Extra work — Take out the existing edgestone at Nos. 8 and 20 and put in new driveway:		
8 hours, edgestone setter, @ 75c.	6 00	
24 hours' labor @ 30c.	7 20	
Plus 15 per cent on \$13.20	1 98	
1 day, double team, @ \$6,	6 00	
Extra work — Remove edgestone already set at No. 12 and construct driveway:		
4 hours, edgestone setter, @ 75c.	3 00	
8 hours' labor @ 30c.	2 40	
Plus 15 per cent on \$5.40,	81	
	<u>\$13,431 16</u>	
Less amount paid in 1915,	696 49	
	<u>12,734 67</u>	
		<u>\$14,001 54</u>
Credit: Block, old granite, 5,150	\$103 00	
Flagging, old granite	18 57	
	<u>121 57</u>	
		<u><u>\$13,879 97</u></u>
<i>Rowell street, from Hancock street to Cushing avenue. (Work not started.)</i>		
Engineering	\$104 60	
Engineering expense	1 60	
Advertising	2 79	
	<u>108 99</u>	
<i>Rugby road, from Randolph avenue to Oakland street. (Work not started.)</i>		
Engineering	\$110 17	
Engineering expense	25	
Advertising	5 82	
	<u>116 24</u>	

St. Albans road, from Francis street to Huntington avenue. (Work done by department force unfinished.) One hundred and eighty-two feet circular edgestone set and reset, 1,107 feet straight edgestone set and reset, 686 square yards roadway excavated and stone foundation placed and 1,647 square yards roadway partly subgraded.

Engineering	\$99 22	
Engineering expense	2 75	
Advertising	2 05	
Edgestone, 970 feet straight, 180 feet circular and 2 small corners	774 56	
Cement	1 24	
Gravel	16 93	
Steam roller	162 50	
Labor, handling stock	14 70	
Labor, edgestone excavating	268 81	
Labor, edgestone resetting	315 23	
Labor, roadway excavating	956 62	
Labor, spreading stone	130 38	
Labor, crushed stone walks	94 42	
Teaming	490 00	
Labor, crosswalk excavating	11 17	
Labor, crosswalk relaying	36 34	
	\$3,376 92	
Credit: Blocks, old granite	7 80	
		<u>\$3,369 12</u>

St. Andrew road, from Bayswater street to Washburn avenue. Length, 1,202 linear feet. Area, 3,602 square yards. Asphalt macadam roadway constructed, edgestone set, granite block gutters paved, flagging crosswalks laid and artificial stone sidewalks constructed.

Engineering	\$8 61	
Regulating sewer covers	12 00	
Amount paid to James Doherty, under contract:		
Removing trees, bushes, stumps, etc.	\$0 01	
1,099 cubic yards earth excavation @ 53c.	582 47	
2,284 linear feet straight edgestone and corners set @ 9c.	205 56	
62 linear feet circular edgestone set @ 15c.	9 30	
51 linear feet existing edgestone reset @ 14c.	7 14	
46 square yards granite block paving hauled and laid @ 45c.	20 70	
36 square yards existing granite block paving relaid @ 50c.	18 00	
61 square yards flagging crosswalks hauled and laid @ 53c.	32 33	
26 square yards existing flagging crosswalks relaid @ 50c.	13 00	
Carried forward	\$888 51	\$20 61

<i>Brought forward</i>	\$888 51	\$20 61	
3,433 square yards bituminous macadam surface furnished and placed (asphalt binder) @ 91c. .	3,124 03		
14,945 square feet artificial stone sidewalks furnished and laid @ 12c. .	1,793 40		
54 square feet artificial stone driveways furnished and laid @ 12c. .	6 48		
9 covers reset @ \$3 .	27 00		
Extra work — Trim old flagging as directed:			
20 hours, stonecutter, @ 62½c. .	12 50		
Plus 15 per cent on \$12.50 .	1 88		
	<u>\$5,853 80</u>		
Less amount paid in 1915,	<u>4,856 88</u>		
		<u>996 92</u>	<u>\$1,017 53</u>
<i>St. Rose street</i> , extended to South street. (Work not started.)			
Engineering		\$30 30	
Engineering expense		10	
Advertising		2 78	
		<u></u>	<u>\$33 18</u>
<i>St. William street</i> , from Dorchester avenue to Auckland street. (Work done in 1915.)			
Sand and gravel			<u>\$33 95</u>
<i>Santuit street</i> , from Roseland street to Welles avenue. (Work not started.)			
Engineering		\$98 18	
Engineering expense		80	
		<u></u>	<u>\$98 98</u>
<i>Saville street</i> , from Park street to Stratford street. (Work not started.)			
Advertising			<u>\$2 56</u>
<i>Schiller road</i> , from Rockland street to Dedham line. (Work done in 1915.)			
Engineering expense			<u>\$0 30</u>
<i>Seaver street</i> (southwesterly side), from Walnut avenue to Humboldt avenue. Length, 1,400 linear feet. Area, 5,056 square yards earth and rock excavation done, wall removed, loam spaces constructed.			
Engineering		\$59 88	
Amount paid William J. Barry, under contract:			
4,202 cubic yards earth excavation @ 50c. .	\$2,101 00		
10,163 cubic yards rock excavation @ \$1.50 .	15,244 50		
	<u></u>		
<i>Carried forward</i>	\$17,345 50	\$59 88	

<i>Brought forward</i>	\$17,345 50	\$59 88
531 linear feet wall removed		
@ \$1	531 00	
Extra work — Haul surplus material to approach to Franklin Park and slope banks as directed:		
20½ days, foreman, @ \$5	101 25	
295 days' labor @ \$2.25	663 75	
21 days, timekeeper, @ \$4	84 00	
Plus 15 per cent on \$849,	127 35	
Plus \$0.0662 insurance	56 20	
51½ days, double team, @ \$6,	310 50	
1 day, auto truck, @ \$20	20 00	
	<u>\$19,239 55</u>	
Less amount paid in 1915	16,710 07	
		<u>2,529 48</u>
		<u><u>\$2,589 36</u></u>

Seaver street (southeast side), Humboldt avenue to Blue Hill avenue.
(Unfinished work from 1915.)

Engineering	\$88 55	
Engineering expense	80	
Gravel	3 00	
Labor, excavating	231 43	
Labor, grading loam space	119 37	
Teaming	76 00	
	<u>\$519 15</u>	
Credit: Blocks, old granite	10 00	
		<u><u>\$509 15</u></u>

Selwyn street, from Farquhar street 1,174 feet northeasterly. (Work not started.)

Engineering	\$23 72	
Advertising	4 59	
		<u><u>\$28 31</u></u>

South street, from Commonwealth avenue to Chestnut Hill avenue. (Work not started.)

Engineering	<u><u>\$6 50</u></u>
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South Sydney street, from Savin Hill avenue to Bay street. (Work done in 1915.)

Engineering expense	<u><u>\$0 15</u></u>
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Southwick street, from Neponset avenue to Freeport street. Length, 359 linear feet. Area, 1,040 square yards. A part of the filling has been furnished. (Work unfinished.)

Engineering	\$84 89	
Engineering expense	2 00	
Advertising	3 12	
	<u>\$90 01</u>	
<i>Carried forward</i>		

PUBLIC WORKS DEPARTMENT.

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<i>Brought forward</i>		\$90 01	
Amount paid Central Construction Company, under contract:			
1,000 cubic yards filling fur- nished @ 50c.	\$500 00		
Less 15 per cent retained	75 00		
	<hr/>	425 00	
			<u>\$515 01</u>

Spring street, at West Department of Boston City Hospital. Length, 1,528 linear feet. Iron and wooden fence constructed and artificial stone sidewalks laid.

Engineering	\$54 19		
Inspection	320 00		
Engineering expense	1 90		
Teaming	22 05		
Amount paid McNeil Construction Company, under contract:			
Building fence	\$8,750 00		
Extra work — Remove bath house near Charles River Bridge and erect same on land of City Hospital as directed	350 00		
Extra work — Extend sup- ports of iron fence into concrete foundations as directed and change brac- ings to $\frac{3}{4}$ -inch stock	25 00		
Extra work — Remove three trees and one stump	35 00		
Extra work — Plumb back pier and fence due to settle- ment of subfoundation:			
3 days, carpenter, @ \$5.20	15 60		
1 $\frac{1}{2}$ days, carpenter's helper, @ \$2.80	4 20		
Plus 15 per cent on \$19.80	2 97		
3 bags cement @ 50c.	1 50		
$\frac{1}{2}$ day, double team, @ \$6	3 00		
	<hr/>	\$9,187 27	
Less amount paid in 1915	4,760 00		
	<hr/>	4,427 27	
			<u>\$4,825 41</u>

Stratton street, from Blue Hill avenue to Lucerne street. (Work done in 1915.)

Engineering	<u>\$18 30</u>
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Sturtevant street, from Park street to Gibson street. Length, 567 linear feet. Area, 1,386 square yards. Hassam block pavement constructed. Straight edgestone set and artificial stone sidewalks constructed.

Engineering	\$141 65
Inspection	238 00
Engineering expense	4 45
Advertising	6 54
	<hr/>
<i>Carried forward</i>	\$390 64

<i>Brought forward</i>		\$390 64
Edgestone, 438 feet straight, 104 feet circular and 4 small corners		381 61
Flagging, 50 feet granite		38 00
Lumber		2 73
Labor, handling stock		7 92
Amount paid James Doherty, under contract:		
Removing trees, bushes, etc.	\$0 01	
684 cubic yards earth excavation @ 37c.	253 08	
977 linear feet straight edgestone and corners hauled and set @ 16c.	156 32	
104 linear feet circular edgestone set @ 11c.	11 44	
4 square yards existing granite block paving relaid @ 35c.	1 40	
1,474 square yards Hassam block pavement furnished and laid, grout joints, including concrete base, @ \$2.97	4,377 78	
10 square yards flagging crosswalks hauled and laid, grout joints, including concrete base, @ \$1.45	14 50	
4,743 square feet artificial stone sidewalks furnished and laid @ 10½c.	498 02	
18 covers reset @ \$3	54 00	
		5,366 55
Extra work — Remove the existing edgestone and construct new driveway at the northerly side of the Sturtevant factory:		
6 hours, paver, @ 62½c.	\$3 75	
20 hours' labor @ 30c.	6 00	
		9 75
Plus 15 per cent on \$9.75		1 46
Extra work — Furnish and place crushed stone for approach to Park street:		
12 hours' labor @ 30c.		3 60
Plus 15 per cent on \$3.60		54
5.75 tons crushed stone @ \$1.50		8 63
Extra work — Build a blind drain on the southerly side of Sturtevant street from the catch-basin on the corner of Park street to the catch-basin about 150 feet easterly:		
Building blind drain		58 00
		<u>\$6,269 43</u>

Temple street, from Spring street to Ivory street. Edgestone set, artificial stone sidewalks constructed and roadway partly constructed with asphalt pavement. (Work unfinished.)

Engineering	\$275 48
Inspection	172 23
Engineering expense	5 50
Edgestone, 1,842 feet straight and 140 feet circular	1,506 99
Lumber	1 56
Labor, making templets	6 50
Labor, handling stock	32 20
Labor, chemist	5 11

Amount paid to Central Construction Company, under contract:

1,500 cubic yards earth excavation @ 55c.	\$825 00
2,000 linear feet straight edgestone and corners hauled and set @ 17c.	340 00
140 linear feet circular edgestone set @ 15c.	21 00
900 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid (unfinished) @ 68c.	612 00

\$1,798 00

Less 15 per cent retained, 269 70

1,528 30

\$3,533 87

Credit: Blocks, old granite 4 87

\$3,529 00

Theodore street, from Morton street 618 feet easterly. Length, 624 linear feet. Area, 1,803 square yards. Street rough graded and edgestone hauled.

Engineering	\$41 60
Inspection	63 67
Engineering expense	1 15
Advertising	3 12
Edgestone, 1,087 feet straight	782 64
Labor, handling stock	16 31

Amount paid Central Construction Company, under contract:

150 cubic yards earth excavation @ 55c.	\$82 50
50 cubic yards rock excavation @ \$5	250 00

\$332 50

Less 15 per cent retained, 49 87

282 63

\$1,191 12

Trent street, from Coleman street to Clarkson street. Length, 228 linear feet. Asphalt pavement laid on a 6-inch Portland cement concrete base. Artificial stone sidewalks were constructed. (Unfinished work from 1915.)

Engineering	\$5 70
Inspection	21 00

Carried forward **\$26 70**

<i>Brought forward</i>			\$26 70
Engineering expense			75
Advertising			4 50
Sand			18 70
Amount paid William J. Rafferty & Co., under contract:			
4 square yards granite blocks paving relaid, grout joints, @ \$1.50	\$6 00		
498 square yards bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.50	747 00		
1,970 square feet artificial stone sidewalks furnished and laid @ 17c.,	334 90		
	\$1,087 90		
Amount paid in 1915	715 35		
		372 55	
			<u>\$423 20</u>

Tuckerman street, from *Dorchester street* to *Middle street*. Length, 375 linear feet. Area, 775 square yards. Edgestone set, artificial stone sidewalks constructed and roadway paved with asphalt on a 4-inch concrete base.

Engineering		\$87 91
Inspection		88 00
Engineering expense		3 50
Advertising		1 09
Edgestone, 705 feet straight, 33 feet circular and 2 small corners		555 91
Bricks		4 38
Lumber		1 92
Labor, making templates		7 50
Labor, handling stock		10 68
Labor, chemist		7 60
Teaming		2 50
Amount paid Central Construction Company, under contract:		
255 cubic yards earth excavation @ 55c.	\$140 25	
12 cubic yards rock excavation @ \$5	60 00	
666 linear feet straight edgestone and corners hauled and set @ 18c.	119 88	
33 linear feet circular edgestone set @ 11c.	3 63	
60 linear feet existing edgestone reset @ 10c.	6 00	
20 square yards existing granite block paving relaid, gravel joints, @ 40c.	8 00	
<i>Carried forward</i>	\$337 76	\$770 99

<i>Brought forward</i>	\$337 76	\$770 99
768 square yards concrete base, bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.60	1,228 80	
21 square yards existing brick sidewalks relaid @ 30c.	6 30	
3,055 square feet artificial stone sidewalks furnished and laid @ 12½c.	381 88	
5 covers reset @ \$3	15 00	
	<hr/>	
	\$1,969 74	
Less 15 per cent retained	295 46	
	<hr/>	
		1,674 28
		<hr/>
		<u>\$2,445 27</u>

Turner street, from Washington street to Faneuil street. (Work not started.)

Engineering	\$84 98	
Engineering expense	90	<u>\$85 88</u>

Upland avenue, from Park street to Melville avenue. Length, 748 linear feet. Area, 2,620 square yards. Edgestone was set and roadway rough graded by district forces. The contractor constructed the artificial stone sidewalks and paved the roadway with asphalt pavement on a concrete base. Unfinished work from 1915. Final payment not made.

Engineering	\$100 97	
Inspection	141 90	
Engineering expense	5 20	
Advertising	3 12	
Edgestone, 6½ feet straight, 12 circular and 2 small corners.	25 08	
Lumber	7 51	
Gravel	18 12	
Steam roller	13 00	
Labor, making templets	13 25	
Labor, watchman	227 50	
Labor, chemist	30 43	
Amount paid Central Construction Company, under contract:		
500 cubic yards earth excavation @ 55c.	\$275 00	
2,562 square yards concrete base bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.60,	4,099 20	
4,000 square feet artificial stone sidewalks furnished and laid (unfinished) @ 9c.,	360 00	
6 covers reset @ \$3	18 00	
	<hr/>	
<i>Carried forward</i>	\$4,752 20	\$586 08

<i>Brought forward</i>	\$4,752 20	\$586 08
Less 15 per cent retained	712 83	
		4,039 37
Labor, edgestone setting		83 25
Labor, edgestone excavating		28 75
Labor, roadway excavating		492 75
Teaming		500 45
		\$5,730 65
Credit: Flagging, old, North River		22 50
		<u>\$5,708 15</u>

<i>Vista street, from Augustus avenue to Malvern road. Edgestone set and roadway rough graded. (Work unfinished.)</i>		
Engineering		\$32 09
Inspection		60 06
Engineering expense		1 20
Advertising		7 50
Edgestone, 767 feet straight and 4 small corners		613 67
Labor, handling stock		8 91
Amount paid Martino DeMatteo, under contract:		
280 cubic yards earth excavation @ 75c.	\$210 00	
650 linear feet straight edgestone and corners hauled and set @ 25c.	162 50	
120 linear feet circular edgestone set @ 12c.	14 40	
	\$386 90	
Less 15 per cent retained	58 04	
		328 86
		<u>\$1,052 29</u>

<i>Wait street, from Hillside street to Sachem street. Length, 163 linear feet. Area, 403 square yards. Edgestone set, bituminous macadam roadway laid. Artificial stone steps, sidewalks and walls.</i>		
Engineering		\$277 31
Inspection		161 00
Engineering expense		5 90
Advertising		5 00
Edgestone, 235 feet straight and 19 feet circular		157 69
Flagging, 54 feet granite		43 27
Blocks		74 50
Labor, handling stock		4 34
Amount paid to James Doherty, under contract:		
Removing trees, etc.	\$1 00	
263 cubic yards earth excavation @ 75c.	197 25	
8 cubic yards water box excavation @ \$1	8 00	
225 linear feet straight edgestone and corners hauled and set @ 23c.	51 75	
	\$258 00	
Carried forward		\$729 01

<i>Brought forward</i>	\$258 00	\$729 01	
28 linear feet circular edge-stone set @ 15c.	4 20		
73 linear feet existing edge-stone set @ 13c.	9 49		
89 square yards granite block paving hauled and laid @ 65c.	57 85		
21 square yards existing granite block paving relaid @ 40c.	8 40		
12 square yards flagging crosswalks hauled and laid @ 70c.	8 40		
281 square yards bituminous macadam surface furnished and placed (tar) @ 93c.	261 33		
28 square yards existing brick sidewalks relaid @ 30c.,	8 40		
2,138 square feet artificial stone sidewalks furnished and laid @ 13c.	277 94		
4 covers reset @ \$3	12 00		
Building artificial stone walls, steps, platforms and walks	1,675 00		
Extra work — F u r n i s h and apply one and three quarters (1½) gallons tar binder per square yard in addition to amount specified in contract:			
492 gallons extra tar binder furnished and applied @ 08½c.	40 59		
		2,621 60	\$3,350 61
<i>Waldo terrace, from Washington street to Henshaw street. (Work not started.)</i>			
Engineering		\$30 85	
Engineering expense		80	\$31 65
<i>Walley street, from Gladstone street to Waldemar avenue. (Work not started.)</i>			
Engineering			\$5 67
<i>Washington street, from Asticou road to Morton street. Edgestone reset, concrete base laid and granite block pavement constructed. (Work unfinished.)</i>			
Engineering		\$476 99	
Inspection		184 75	
Engineering expense		11 20	
Edgestone, 14 feet straight, 42 feet circular and 1 corner		61 38	
<i>Carried forward</i>		\$734 32	

<i>Brought forward</i>			\$734 32
Advertising			10 00
Lumber			1 20
Labor, making templets			2 75
Labor, stonecutter			17 25
Labor, spreading stone on walks			5 00
Teaming			2 50
Amount paid to James Doherty, under contract:			
1,200 cubic yards earth excavation @ 66½c.	\$798 00		
50 linear feet circular edge-stone set @ 13c.	6 50		
530 linear feet existing edge-stone reset @ 14½c.	78 18		
270 cubic yards concrete base furnished and laid @ \$5.25	1,417 50		
840 square yards granite block paving furnished and laid, grout joints, @ \$2.49	2,091 60		
930 square yards existing granite block paving relaid, grout joints, @, 95c.	883 50		
60 square yards existing crosswalks relaid, grout joints, @ 90c.	54 00		
Concrete wall built	1,090 00		
	<u>\$6,419 28</u>		
Less 15 per cent retained,	962 89		
		<u>5,456 39</u>	
		<u>\$6,229 41</u>	
Credit: Edgestone, 304 feet old straight, 63 feet circular and 2 small corners	\$167 90		
Blocks, 5,607 old granite	112 14		
Flagging	12 40		
		<u>292 44</u>	
			<u>\$5,936 97</u>
<i>Wellington Hill footway, from Wellington Hill street to Walk Hill street.</i> (Work done in 1915.)			
Engineering		\$14 27	
Engineering expense		75	
		<u> </u>	<u>\$15 02</u>
<i>Wensley street, from Bucknam street to Bickford avenue.</i>			
Engineering		\$124 58	
Engineering expense		70	
Advertising		4 00	
		<u> </u>	<u>\$129 28</u>
<i>Westmoreland street, from Adams street 708 feet westerly. (Work done in 1915.)</i>			
Engineering expense			<u>\$0 35</u>

Westwood street, from Richfield street to Wales street. Edgestone set, roadway rough graded. (Work unfinished.)

Engineering	\$135 71	
Inspection	84 50	
Engineering expense	3 35	
Advertising	4 61	
Edgestone, 910 feet straight	655 20	
Labor, handling stock	13 65	
Steam roller	26 00	
Labor, roadway excavating	43 66	
Teaming	21 80	
Amount paid Central Construction Company, under contract:		
900 cubic yards earth excavation @ 74c.	\$666 00	
115 cubic yards rock excavation @ \$6	690 00	
700 linear feet straight edgestone and corners hauled and set @ 23c.	161 00	
	<hr/>	
	\$1,517 00	
Less 5 per cent retained	75 85	
	<hr/>	
	1,441 15	
	<hr/>	
		<u>\$2,429 63</u>

Whitfield street, from Talbot avenue to Norfolk street. (Work done in 1915.)

Engineering	<u>\$6 50</u>
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William Jackson avenue, from Chestnut Hill avenue to Academy Hill road. (Work not started.)

Engineering	\$6 86	
Engineering expense	50	
Advertising	2 57	
Teaming	8 75	
	<hr/>	
		<u>\$18 68</u>

Willow court, extended to Massachusetts avenue.

Engineering	\$124 26	
Engineering expense	2 20	
Advertising	2 04	
	<hr/>	
		<u>\$128 50</u>

Wilmington avenue, from Milton avenue to Nevada street. (Work not started.)

Engineering	<u>\$9 00</u>
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Woodworth street, from Walnut street to Redfield street. (Work done in 1914-15.)

Engineering	\$5 52	
Engineering expense	10	
Advertising	2 57	
	<hr/>	
		<u>\$8 19</u>

Wordsworth Street Footbridge, East Boston. Steel tress footbridge constructed over Boston, Revere Beach & Lynn Railroad.

Engineering	\$452 37	
Inspection	240 00	
Advertising	13 50	
Printing	55 21	
Amount paid to Daniel Marr & Son Company, under contract:		
Contract price	\$2,210 00	
Extra work under order dated August 11, 1916:		
2½ cubic yards concrete @ \$10	27 50	
524 feet B. M. lumber used in forms @ \$30	15 72	
3 cubic yards excavation @ \$2,	6 00	
Add 15 per cent	7 38	
	<hr/>	2,266 60
		<hr/> <u>\$3,027 68</u>

Wordsworth street, from Horace street to Coleridge street. (Work not started.)

Engineering	<u>\$4 47</u>
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Worthington street, from Longwood avenue to Fenway. Length, 1,161 linear feet. Area, 3,385 square yards. Roadway paved with asphalt on a six (6) inch Portland cement concrete base and artificial stone sidewalks constructed by contract; edgestone set and concrete base laid by division force.

Engineering	\$44 77	
Inspection	150 50	
Engineering expense	4 70	
Advertising	4 50	
Edgestone, 1,188 feet 8 inches straight	796 57	
Flagging 113 feet, granite	85 75	
Blocks	13 20	
Cement, 289 barrels	377 58	
Sand, 149 cubic yards	177 31	
Crushed stone, 252 tons	338 23	
Teaming	210 82	
Amount paid to Central Construction Company, under contract:		
2,435 square yards bituminous concrete binder and asphalt wearing surface furnished and laid @ \$1.57	\$3,822 95	
14 square yards existing brick sidewalks relaid @ 50c.,	7 00	
7,045 square feet artificial stone sidewalks furnished and laid @ 13c.	915 85	
140 square feet artificial stone driveways furnished and laid @ 16c.	22 40	
335 square yards loam spaces graded and seeded @ 9c.	30 15	
	<hr/>	
Carried forward	\$4,798 35	\$2,203 93

PUBLIC WORKS DEPARTMENT.

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<i>Brought forward</i>	\$4,798 35	\$2,203 93	
147.7 cubic yards loam furnished @ \$1.25	184 63		
Extra work — Remove accumulation of snow and ice from the concrete base:			
8 hours, foreman, @ 62½c.	5 00		
24 hours, timekeeper, @ 31½c.	7 50		
295 hours' labor @ 25c.	73 75		
Plus 15 per cent on \$86.25,	12 94		
14 sacks salt @ 90c.	12 60		
200 gallons kerosene oil @ 9c.,	18 00		
	<u>\$5,112 77</u>		
Less amount paid in 1915,	<u>3,244 17</u>		
		<u>1,868 60</u>	
		<u>\$4,072 53</u>	
Credit: Bricks, 10,000 old sidewalk		<u>70 00</u>	
			<u><u>\$4,002 53</u></u>
<i>Wyoming street</i> , extended to Humboldt avenue. (Work not started.)			
Engineering		\$6 00	
Advertising		75	
		<u> </u>	<u><u>\$6 75</u></u>

RECAPITULATION OF STREET WORK.

MAINTENANCE.

<i>Allston street</i> , from Bulfinch street to Bowdoin street	\$700 38
<i>Appian way</i> , from Franklin street to Raymond street	174 85
<i>Ashland street</i> , at railroad bridge	305 89
<i>Aspen street</i> , from Montrose street to Copeland street	998 28
<i>Baxter street</i> , from C street to D street	1,117 25
<i>Bay State road</i> , from Granby street to Ashby street	973 56
<i>Beacon street</i> , from Newton line to Cleveland circle	17,621 47
<i>Bennington street</i> , from Saratoga street to Leyden street	2,628 36
<i>Benton street</i> , from Columbus avenue to Tremont street	753 69
<i>Bickerstaff street</i> , from Haviland street to Astor street	1,272 09
<i>Blandford street</i> , from Commonwealth avenue to the railroad	716 85
<i>Blue Hill avenue</i> , at Talbot avenue intersection and approaches	947 18
<i>Blue Hill avenue</i> , from Hiawatha road to Wellington Hill street	6 29
<i>Blue Hill avenue</i> , from Woodrow avenue to Talbot avenue	1,633 53
<i>Boylston street</i> , from Ipswich street to Brookline avenue	3,300 73
<i>Buckingham street</i> , from Dartmouth street to Columbus avenue	212 73
<i>Burke street</i> , from Tremont street to Columbus avenue	315 62
<i>Carpenter street</i> , from Hyde street to Preble street,	1,055 85
<i>Centre street</i> , from Dorchester avenue to Adams street	3,641 44
<i>Centre street</i> , from Bellevue street to Beech street (east side)	680 10
<i>Centre street</i> , from Bellevue street to Spring street,	1,604 84
<i>Charles street</i> , from Dorchester avenue to Ditson street	7,271 72
<i>Carried forward</i>	\$47,932 70



<i>Brought forward</i>	\$47,932 70
<i>Chelsea street</i> , from Porter street to Marion street,	1,076 14
<i>Chilmark street</i> , from Commonwealth avenue to Bay State road	440 63
<i>Colton street</i> , from West First street to West Second street	289 69
<i>Columbia road</i> , from Old Colony avenue to New- man street	6,217 51
<i>Concord street</i> , from Bunker Hill street to Monu- ment square	537 91
<i>Cummington street</i> , from Blandford street to Lawton street	1,771 50
<i>Davenport street</i> , from Tremont street to Columbus avenue	317 61
<i>Deerfield street</i> , from Bay State road to Common- wealth avenue	718 39
<i>Dixfield street</i> , from Old Harbor street to Coving- ton street	543 11
<i>Draper street</i> , from Bowdoin street to Arcadia street	4,651 71
<i>East Concord street</i> , from Washington street to Harrison avenue	2 65
<i>East Eighth street</i> , from Dorchester street to Covington street	50 15
<i>East Second street</i> , from Dorchester avenue to H street	2,541 75
<i>Essex street</i> , from Washington street to Harrison avenue (north side)	221 25
<i>Faulkner street</i> , from Dorchester avenue to Free- man street	188 40
<i>Geneva avenue</i> , from Blue Hill avenue to Walden street	426 71
<i>Harvard street</i> , from Talbot avenue to Vesta road,	1,112 32
<i>Harvard street</i> , from Vesta road to Abbot street .	1,619 29
<i>Harvard street</i> , from Waterlow street to School street	368 57
<i>Haviland street</i> , from Massachusetts avenue to Hemenway street	1,068 07
<i>Howard avenue</i> , from Quincy street to Cunningham street	7 50
<i>I street</i> , from East Fourth street to East Sixth street	1,222 13
<i>I street</i> , from East Sixth street to Columbia road,	1,700 73
<i>Julian street</i> , from Blue Hill avenue to Judson street	840 05
<i>L street</i> , from East First street across East Broad- way	2 83
<i>Lake street</i> , from Commonwealth avenue 1,720 feet northerly	2,554 06
<i>Carried forward</i>	<hr/> \$78,423 36

<i>Brought forward</i>	\$78,423 36
<i>Lake street</i> , from Commonwealth avenue 200 feet northerly (east side)	1,439 44
<i>Lanark road</i> , from Colliston road to Brookline avenue	741 81
<i>Lincoln street</i> , from Cambridge street to Franklin street	882 20
<i>Metropolitan avenue</i> , from Hyde Park avenue to River street	9,671 29
<i>Milton street</i> , from Sprague street to Dedham line, <i>Morton street</i> , from Blue Hill avenue to Canterbury street	7,281 13
	3,094 47
<i>Morton street</i> , from Forest Hills Cemetery to Can- terbury street	4,456 46
<i>Nashua street</i> , in front of post office	367 87
<i>Newbury street</i> , from Brookline avenue to Charles- gate West	526 53
<i>Newport street</i> , from Crescent avenue to Harbor View street	1,349 10
<i>North street</i> , from Union street to Merchants row, <i>North Centre street</i> , from Hanover street to North street	956 81
	2,584 41
<i>North Margin street</i> , from La Fayette avenue 125 feet southerly	348 49
<i>Olney street</i> , from Blakeville street to Bowdoin street	371 23
<i>P street</i> , from East Sixth street to Columbia road, <i>Palmer street</i> , from Harrison avenue to Washington street	1,484 76
	1,483 13
<i>Park street</i> , from Adams street to railroad bridge, <i>Pierce square</i> , from Adams street to Milton line, <i>Pleasant street</i> , from Savin Hill avenue to Downer square	432 60
	1,093 36
	5,675 62
<i>Quincy street</i> , from Blue Hill avenue to Howard avenue	109 13
<i>Robinwood avenue</i> , from Rockview street to 100 feet westerly (south side)	116 04
<i>Roseclair street</i> , from Dorchester avenue to Boston street	3,373 14
<i>Rutherford avenue</i> , from Washington street to City square	2,418 34
<i>Saratoga street</i> , from Butler avenue to Washburn street	7,537 14
<i>Savin street</i> , from Blue Hill avenue to Warren street	3,504 53
<i>Somerset street</i> , from 20 feet north to 20 feet south of Ashburton place	304 74
<i>South street</i> , from Commonwealth avenue to Chestnut Hill avenue	1,033 87
<i>Carried forward</i>	<hr/> \$141,061 00

PUBLIC WORKS DEPARTMENT.

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<i>Brought forward</i>	\$141,061 00
<i>Sudbury street</i> , from Portland street to Haymarket square	679 54
<i>Summer street</i> , at viaduct and from D street to E street	1,268 40
<i>Tenean street</i> , from Freeport street 1,500 feet southerly	354 87
<i>Union Park street</i> , from Shawmut avenue to Tremont street	1,683 27
<i>Union Park street</i> , from Shawmut avenue to Washington street	916 15
<i>Wachusett street</i> , from Weld Hill street to Barlow street	371 10
<i>Walk Hill street</i> , from Blue Hill avenue to Almont street	3,738 57
<i>Walk Hill street</i> , from Hyde Park avenue to Canterbury street	5,092 02
<i>Walnut avenue</i> , from Dale street to Humboldt avenue (north side)	457 35
<i>Warren street</i> , from Blue Hill avenue to Brunswick street	1,086 77
<i>Washington street</i> , from Ashland street to La Grange street	4,795 73
<i>Washington street</i> , from New York, New Haven & Hartford Railroad to Stony brook	230 35
<i>Washington street</i> , from Bartlett street to Dudley street	849 35
<i>Washington street</i> , from Erie street to Eldon street,	183 26
<i>Waumbeck street</i> , from Warren street to Humboldt avenue	549 48
<i>Wellesley park</i> , from Park street to Melville avenue	259 80

\$163,577 01

Amount due from Highways, Making of 1,318 60

\$164,895 61

CHARGED TO SPECIAL APPROPRIATIONS.

<i>Belgrade avenue extension and Beech street</i> , widening	\$59 40
<i>Chelsea street</i> , Charlestown, widening	30 30
<i>Hyde Park avenue</i> , widening	490 98
<i>Norfolk street</i> , Dorchester, widening	570 78
* <i>Charles street</i> (now Caledonian avenue), between Spring and Hamilton streets.	

\$1,151 46

 * Charged to Highways, Making of, \$449.92.

CHARGED TO APPROPRIATION FOR GRANOLITHIC SIDEWALKS.

<i>Amherst street</i> , from Penfield street to Belgrade avenue	\$0 45
<i>Ashmont street</i> , from Neponset avenue 200 feet westerly	361 48
<i>Bayswater street</i> , from Saratoga street to Austin avenue	72 24
<i>Belfort street</i> , from Dorchester avenue to Saxton street	50
<i>Belvidere street</i> , from Massachusetts avenue to Dalton street	35 44
<i>Birch street</i> , from Penfield street to Corinth street,	75
<i>Blue Hill avenue</i> , east side, from Washington street to Morton street, and west side, from Cheney street to Seaver street	367 07
<i>Bourne street</i> , north side, from Walk Hill street to Patten street	10
<i>Bowdoin street</i> , west side, from Bowdoin avenue to Bullard street	15
<i>Brooks street</i> , from Faneuil street to Hobart street,	1 20
<i>Brookside avenue</i> , from Boylston street to Green street	30
<i>Corbet street</i> , from Norfolk street to Morton street,	90 15
<i>Creighton street</i> , from Centre street to Day street,	20
<i>Day street</i> , from Centre street to Minden street	60
<i>Dorchester avenue</i> , east side, near Richmond street,	328 58
<i>Dorchester avenue</i> , at Nos. 1542, 1544, 1582, 1584, 1586 and 1588	1 02
<i>Dorchester avenue</i> , from Ralston street 110 feet southerly	425 00
<i>Dover street</i> , north side, from Tremont street 58 feet easterly	214 72
<i>Dracut street</i> , from Dorchester avenue to Bruce street	05
<i>East Concord street</i> , north side, from Harrison avenue to 245 feet easterly.	337 00
<i>Elmo street</i> , from Erie street to Greenwood street,	1 10
<i>Evergreen street</i> , from South Huntington avenue to Day street	75
<i>Falmouth street</i> , east side, at Christian Science Church Park	541 20
<i>Florence street</i> , from Poplar street to Ashland street	17 93
<i>Gladstone street</i> , from Walley street to Upland street	1,555 89
<i>Harrison avenue</i> , west side, from Kneeland street to Harvard street	986 08
<i>Carried forward</i>	<hr/> \$5,339 95

PUBLIC WORKS DEPARTMENT.

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<i>Brought forward</i>	\$5,339 95
<i>Harrison avenue</i> , east side, from Stoughton street to East Concord street	268 31
<i>Hastings street</i> , from Centre street to Montview street	45
<i>Haviland street</i> , from Haviland terrace to 273 feet northerly	6 19
<i>Holbrook street</i> , from Centre street to Dane street,	90
<i>Holton street</i> , from Everett street to Franklin street,	50
<i>Huntington avenue</i> , at Christian Science Church Park	414 30
<i>Magnolia square</i> , from Magnolia street 110 feet westerly	114 96
<i>Massachusetts avenue</i> , east side, from Norway street to 67 feet northerly	210 94
<i>Medfield street</i> , from Audubon road to St. Mary's street	6 42
<i>Norfolk avenue</i> , from Shirley street to Burrell street	30 48
<i>Norway street</i> , north side, from Massachusetts avenue 113 feet easterly, and south side, at Christian Science Church Park	291 55
<i>Penfield street</i> , from Belgrade avenue to Birch street	242 39
<i>Poplar street</i> , from Sycamore street to 240 feet south of Hilburn street	1,586 15
<i>Poplar street</i> , from Washington street to Sycamore street	1,814 57
<i>Quincy street</i> , from Coleman street to Barry street,	10
<i>Saratoga street</i> , from Butler avenue to Washburn avenue	4,001 03
<i>Scotia street</i> , from St. Cecilia street to Dalton street	38 39
<i>Shirley street</i> , south side, from Clifton street to Norfolk avenue	49 54
<i>St. Cecilia street</i> , from Boylston street to Belvidere street	33 08
<i>Stoughton street</i> , south side, from Harrison avenue 266 feet easterly	390 17
<i>Stoughton street</i> , south side, from Stoughton place to No. 15	93
<i>Tremont street</i> , east side, from Dover street 89 feet northerly	266 95
<i>Walk Hill street</i> , west side, from Wachusett street to Bourne street	20
<i>Washington street</i> , south side, from Tip Top street to Newton line	1,441 50
<i>Water street</i> , from Kilby street 202 feet easterly	14 99
<i>Carried forward</i>	<hr/> \$16,564 94

<i>Brought forward</i>	\$16,564 94
<i>West Broadway</i> , from Dorchester avenue to Dorchester street	9 50
	<hr/>
	<u>\$16,574 44</u>

CHARGED TO APPROPRIATION FOR RECONSTRUCTING AND
REPAIRING STREETS BY CONTRACT.

<i>Albany street</i> , from Dover street to Northampton street	\$51,989 91
<i>Albany street</i> , from Kneeland street to Boston & Albany Railroad bridge	75 88
<i>Appleton street</i> , from Berkeley street to Columbus avenue	9,014 16
Artificial stone sidewalks	14,507 46
Asphalt and bitulithic pavements repaired	35,964 66
<i>Batterymarch street</i> , from Franklin street to Broad street	4,127 07
<i>Beach street</i> , from Harrison avenue to Atlantic avenue	17 25
<i>Blossom street</i> , from Allen street to Fruit street	53 10
<i>Boylston street</i> , from Tremont street to Washington street	68 25
<i>Canal street</i> , from Haymarket square to Causeway street	698 38
<i>Chandler street</i> , from Berkeley street to Columbus avenue	7,346 28
<i>Clinton street</i> , from Merchants row to Commercial street	90 89
<i>Columbia road</i> , from Edward Everett square to Dudley street	19,198 81
<i>Cross street</i> , from Commercial street to Haymarket square	158 32
<i>Dearborn street</i> , from Albany street to Dudley street	3,082 96
<i>Devonshire street</i> , from Adams square to Water street	8,271 88
<i>Dorchester avenue</i> , from Savin Hill avenue to Freeport street	651 16
<i>Fruit street</i> , from Charles street to Blossom street	98 76
<i>Fulton street</i> , from Blackstone street to Richmond street	64 30
<i>Harrison avenue</i> , from Kneeland street to Dover street	433 67
<i>Haymarket square</i> , junction Cross, Washington and other streets	176 97
<i>Lincoln street</i> , from Essex street to Beach street	73 96
<i>McKinley square</i> , at Broad street	167 83
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<i>Carried forward</i>	\$156,331 91

<i>Brought forward</i>	\$156,331 91
<i>Mercantile street</i> , from South Market street to Richmond street	95 34
<i>North Anderson street</i> , from Parkman street to Fruit street	558 14
<i>North Grove street</i> , from Cambridge street to Fruit street	90 97
<i>Parkman street</i> , from North Anderson street to North Grove street	1,193 51
<i>School street</i> , from Washington street to Tremont street	5,524 22
<i>Wachusett street</i> , from Weld Hill street to Barlow street	756 10
<i>Washington street</i> , from Haymarket square to Elm street	139 72
<i>Water street</i> , from Kilby street 202 feet easterly	384 05
<i>West Broadway</i> , from Dorchester avenue to E street	134 16
<i>West Canton street</i> , from Tremont street to Appleton street	5,432 28
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	\$170,640 40
Amount included in streets on Highways, Making of	10 01
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	<u>\$170,650 41</u>

CHARGED TO APPROPRIATION FOR HIGHWAYS, MAKING OF.

<i>Ainsworth street footway</i> , from Tyndale street to Belgrade avenue	\$6,798 10
<i>Alexander street</i> , from Bird street about 527 feet northerly	7,574 41
<i>Amory street</i> , from Bragdon street to Centre street	3,229 03
<i>Ardent street</i> , from Belgrade avenue to Colberg avenue	1,985 25
<i>Atkins street</i> , from Washington street 609 feet northeasterly	215 63
<i>Augustus avenue</i> , from Poplar street to beyond Clarendon avenue	947 58
<i>Augustus avenue</i> , from Metropolitan avenue to Ethel street	1,314 19
<i>Bardwell street</i> , from South street to Ballard street	2,956 76
<i>Bexley road</i> , from Washington street to Florence street	100 45
<i>Birch street</i> , from Penfield street to Dudley avenue	30
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<i>Carried forward</i>	\$25,131 70

<i>Brought forward</i>	\$25,131 70
<i>Blake street</i> , from Randolph street northeasterly .	73 73
<i>Bourneside street</i> , from Park street to Melville avenue	30
<i>Bradwood street</i> , from Colberg avenue to Belgrade avenue	685 19
<i>Breck avenue</i> , Washington street to Nonantum street	10 04
<i>Brunswick street</i> , from Blue Hill avenue to Nor- mandy street	5,667 45
<i>Caledonian avenue</i> (see Charles street — Special Appropriations)	449 92
<i>Caspian way</i> , from Savin Hill avenue easterly .	138 22
<i>Cedric street</i> , from Magazine street to Langdon street	4,441 32
<i>Centervale park</i> , from Upland avenue to Bourne- side street	4,868 41
<i>Chapin avenue</i> , from Mt. Vernon street to Preston road	210 09
<i>Chauncy street</i> , from Bedford street 106 feet north- westerly	844 04
<i>Claybourne street</i> , from 210 feet south of Dakota street to Park street	445 20
<i>Cliffmont street</i> , southwesterly from Canterbury street	67 59
<i>Condor street</i> , from Glendon street to East Eagle street	20,365 56
<i>Conley street</i> , from Old Colony Parkway to Tenean street	15 03
<i>Cornell street</i> , from Orange street to Colberg avenue	1,552 84
<i>Crandall street</i> , from Augustus avenue to Hillside avenue	400 48
<i>Crown path</i> , from Claybourne street to Washing- ton street	3,204 48
<i>Cummings road</i> , from Commonwealth avenue extended	116 52
<i>Dana avenue footway</i> , from Dana avenue to Easton avenue	91 78
<i>Dane street</i> , from Holbrook street to Orchard street	40
<i>Dempster street</i> , from Ruggles street to Halleck street	30
<i>Downer avenue</i> , extended to Sawyer avenue .	54 83
<i>Dunlap street</i> , from Washington street to Whit- field street	1,143 00
<i>Dunster road</i> , from Centre street to Pond street .	5,612 06
<i>East First street</i> , from H street to West First street	3,809 36
<i>Carried forward</i>	<hr/> \$79,399 84

<i>Brought forward</i>	\$79,399 84
<i>Elgin street</i> , from Centre street to West Roxbury Branch Railroad	106 40
<i>Epping street</i> , from Washington street to Norfolk street	440 74
<i>Eric avenue</i> , from Savin Hill avenue northerly	2,837 78
<i>Everton street</i> , from Geneva avenue to Olney street	6,074 41
<i>Faywood avenue</i> , from Orient avenue to Town street	6 50
<i>Fernboro street</i> , from Lawrence avenue to Intervale street	5,366 02
<i>Fordham road</i> , from Commonwealth avenue to Brighton avenue	32 38
<i>Gaffney street</i> , from Commonwealth avenue to Boston & Albany Railroad	2,009 74
<i>Glencoe street</i> , from North Beacon street to Gardner street	105 59
<i>Glendower road</i> , from Kittredge street to Poplar street	10,606 00
<i>Gove street</i> , from Cottage street to Venice street	21 60
<i>Gove street footway</i> , from Orleans street to Bremen street	9,935 04
<i>Grace street</i> , from Roslin street to Walton street	2 65
<i>Granada avenue</i> , from Metropolitan avenue to Ethel street	1,116 48
<i>Halifax street</i> , from South Huntington avenue to Pond View street	14 84
<i>Hallet street</i> , from Minot street to the railroad	2,100 00
<i>Harvard street</i> , from Morton street to Deering road	495 49
<i>Harwood street</i> , from Willowwood street to Lucerne street	6,004 58
<i>Haslet street</i> , from Amherst street to Metcalf street,	30
<i>Helen street</i> , from Talbot avenue to Bernard street,	120 17
<i>Herbert street</i> , from Park street to West Tremlett street	15
<i>Hillcrest street</i> , from Elgin street to Temple street,	2,839 52
<i>Hill Top street</i> , from Granite avenue to Hallet street	2,780 12
<i>Homestead street</i> , from Humboldt avenue to Elm Hill avenue	3,130 09
<i>Hubert street</i> , from Shawmut avenue to Westminster street	2,946 88
<i>Intervale street</i> , from Columbia road to Normandy street	15
<i>Jones avenue</i> , from Mascot street to Ballou avenue,	9,613 57
<i>Jones avenue footway</i> , from Norfolk street to Ballou avenue	227 68
<i>Carried forward</i>	<hr/> \$148,334 71

<i>Brought forward</i>	\$148,334 71
<i>Juliette street</i> , from Fox street to Homes avenue .	45
<i>Kenney street</i> , from Day street to 500 feet north- westerly	4 00
<i>Kenton road</i> , from Washington street easterly .	63 90
<i>Kittredge street</i> , from Cornell street to Beech street,	5,914 43
<i>Langley road</i> , from Breck avenue to 571 feet easterly	30 58
<i>Lithgow street</i> , from Talbot avenue to Wainwright street	1,602 75
<i>Lorenzo street</i> , from Walnut street to Woodworth street	10
<i>Lorette street</i> , from Centre street to Hillcrest street,	3,953 60
<i>Lorne street</i> , from Harvard street northwesterly .	107 25
<i>Lucas street</i> , from Washington street to Shawmut avenue	184 31
<i>Lyford street</i> , from Woodrow avenue to Franklin Field	80 96
<i>Matchett street</i> , from Washington street 843 feet northeasterly	1,643 12
<i>Melvinside terrace</i> , from Dorchester avenue to Minton street	10
<i>Mendon park</i> , from Bourneside street to Upland avenue	9 00
<i>Minton street</i> , from Amory street to Brookside avenue	39 65
<i>Montebello road</i> , from Forest Hills street to Walnut avenue	8,903 27
<i>Moraine street</i> , from South Huntington avenue to Jamaicaway	231 76
<i>Moreland street</i> , from Dennis street to Brook avenue	8 95
<i>Morton street</i> , from Norfolk street to Midland Division Railroad	6,767 44
<i>Mt. Ida road</i> , from Marie street to Ronan Park .	1,618 11
<i>Neptune road</i> , from Bennington street to Boston, Revere Beach & Lynn Railroad	324 82
<i>Nevada street</i> , from Wilmington avenue to Fair- mount street	4 50
<i>Normandy street</i> , from Intervale street to Devon street	3,678 33
<i>North Beacon street</i> , from Cambridge street to Market street	225 11
<i>Oakland street</i> , from River street to Rockdale street,	45
<i>Orchardfield street</i> , from Dorchester avenue to Freeport street	3,622 71
<i>Orleans street</i> , from Gove street to Porter street .	7,600 46
<i>Overland street</i> , from Brookline street to Boston & Albany Railroad	113 85
<i>Carried forward</i>	<hr/> \$195,058 67

<i>Brought forward</i>	\$195,058 67
<i>Parkton road</i> , from Perkins street to Perkins street,	9,636 78
<i>Patten street</i> , from Hyde Park avenue to Bourne street	40 39
<i>Peacevale road</i> , from Norfolk street to Dunbar avenue	4 10
<i>Percival street</i> , from Fox street to Marie street	15
<i>Perham street</i> , from Vernon street to the railroad	88 03
<i>Porter street</i> , from Cottage street across Geneva street	9 42
<i>Prince street</i> , from Pond street to the Arborway	4 00
<i>Public Alley 902</i> , from Deerfield street to Raleigh street	60 75
<i>Public Alley 903</i> , from Haviland street to Public Alley 904	2,137 13
<i>Public Alley 904</i> , from Bickerstaff street to Public Alley 903	664 52
<i>Ralston street</i> , from Dorchester avenue to Old Colony avenue	378 26
<i>Randall street</i> , from Harrison avenue to Albany street	5,052 09
<i>Raven street</i> , from Crescent avenue southerly	05
<i>Redfield street</i> , from Port Norfolk street to Walnut street	134 38
<i>Richwood street</i> , from Centre street to Montview street	70 88
<i>Ripley road</i> , from Vassar street to Harvard street,	4,664 97
<i>Rosewood street</i> , from Oakland street to Randolph road	13,879 97
<i>Rowell street</i> , from Hancock street to Cushing avenue	108 99
<i>Rugby road</i> , from Randolph avenue to Oakland street	116 24
<i>St. Albans road</i> , from Francis street to Huntington avenue	3,369 12
<i>St. Andrew road</i> , from Bayswater street to Washburn avenue	1,017 53
<i>St. William street</i> , from Dorchester avenue to Auckland street	33 95
<i>Santuit street</i> , from Roseland street to Welles avenue	98 98
<i>Saville street</i> , from Park street to Stratford street,	2 56
<i>Schiller road</i> , from Rockland street to Dedham line	30
<i>Seaver street</i> , southwest side, from Walnut avenue to Humboldt avenue	2,589 36
<i>Seaver street</i> , southeast side, from Humboldt avenue to Blue Hill avenue	509 15
<i>Carried forward</i>	<hr/> \$239,730 72

<i>Brought forward</i>	\$239,730 72
<i>Selwyn street</i> , from Farquhar street 1,174 feet northeasterly	28 31
<i>South street</i> , from Commonwealth avenue to Chest- nut Hill avenue	6 50
<i>South Sydney street</i> , from Savin Hill avenue to Bay street	15
<i>Southwick street</i> , from Neponset avenue to Free- port street	515 01
<i>Spring street</i> , from Webster street to the Charles river	4,825 41
<i>St. Rose street</i> , extended to South street	33 18
<i>Stratton street</i> , from Blue Hill avenue to Lucerne street	18 30
<i>Sturtevant street</i> , from Park street to Gibson street,	6,269 43
<i>Temple street</i> , from Spring street to Ivory street	3,529 00
<i>Theodore street</i> , from Morton street to 618 feet easterly	1,191 12
<i>Trent street</i> , from Coleman street to Clarkson street	423 20
<i>Tuckerman street</i> , from Dorchester street to Middle street	2,445 27
<i>Turner street</i> , from Washington street to Faneuil street	85 88
<i>Upland avenue</i> , from Park street to Melville avenue	5,708 15
<i>Vista street</i> , from Augustus avenue to Malvern road	1,052 29
<i>Wait street</i> , from Hillside street to Sachem street,	3,350 61
<i>Waldo terrace</i> , from Washington street to Henshaw street	31 65
<i>Walley street</i> , from Gladstone street to Waldemar avenue	5 67
<i>Washington street</i> , from Morton street to Asticou road	5,936 97
<i>Wellington Hill footway</i> , from Wellington Hill street to Walk Hill street	15 02
<i>Wensley street</i> , from Bucknam street to Bickford avenue	129 28
<i>Westmoreland street</i> , from Adams street 708 feet westerly	35
<i>Westwood street</i> , from Richfield street to Wales place	2,429 63
<i>Whitfield street</i> , from Talbot avenue to Norfolk street	6 50
<i>William Jackson avenue</i> , from Chestnut Hill avenue to Academy Hill road	18 68
<i>Willow court</i> , extended to Massachusetts avenue,	128 50
<i>Carried forward</i>	<hr/> \$277,914 78

PUBLIC WORKS DEPARTMENT.

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<i>Brought forward</i>		\$277,914 78
<i>Wilmington avenue</i> , from Milton avenue to Nevada street		9 00
<i>Woodworth street</i> , from Walnut street to Redfield street		8 19
<i>Wordsworth street footbridge</i> , over Boston, Revere Beach & Lynn Railroad	3,027 68	
<i>Wordsworth street</i> , from Horace street to Coleridge street		4 47
<i>Worthington street</i> , from Longwood avenue to Fenway	4,002 53	
<i>Wyoming street</i> , extended to Humboldt avenue	6 75	
		<hr/>
Total		\$284,973 40
Less amount due Paving Service	\$1,318 60	
Less amount due reconstructing		
and repairing streets by contract,	10 01	
		<hr/>
		1,328 61
		<hr/>
Total		<u>\$283,644 79</u>

PUBLIC WORKS DEPARTMENT—HIGHWAY DIVISION—PAVING SERVICE.

Maintenance of Macadam Streets.

Table showing cost by years of resurfacing or patching from February 1, 1913, to January 31, 1917.

	1913.	1914.	1915.	1916.
Total length of macadam in miles	388.14	392.27	396.28	392.91
Total area of macadam in square yards	7,029,622	7,092,634	7,147,804	7,058,095
Total cost of resurfacing of macadam *	\$252,127 10	\$317,134 41	\$170,760 85	\$115,268 20
Total cost of patching of macadam †	\$95,645 60	\$102,847 01	\$136,059 01	\$114,113 82
Cost of resurfacing per mile over entire mileage	\$649 58	\$808 46	\$430 91	\$293 37
Cost of resurfacing per square yard over entire area	\$0 636	\$0 045	\$0 024	\$0 016
Length of macadam resurfaced yearly in miles	22.6	26.2	13.4	11.5
Cost per mile of macadam resurfaced yearly	\$11,156 07	\$12,104 87	\$12,743 35	\$10,023 32
Area of macadam resurfaced yearly in square yards	336,591	381,063	185,215	179,093
Cost per square yard of macadam resurfaced yearly	\$0 749	\$0 832	\$0 922	\$0 644
Area of macadam patched yearly in square yards	417,059	477,963	680,470	445,637
Cost per square yard of macadam patched yearly	\$0 229	\$0 215	\$0 200	\$0 256
Binders used (per cent):				
Water	39.73	23.04	13.29	19.80
Tar preparations	42.99	51.13	34.88	54.96
Asphalt preparations	17.28	25.83	51.83	25.24

* By resurfacing is meant entire area of street excavated and resurfaced with not less than four inches of new material.
† By patching is meant scattered areas of depressions, etc., which are filled with new material from a depth of one-half inch up.

New Edgestones. (Does not include work done on streets laid out and constructed under chapter 393 of the Acts of 1906.)

First Setting. Linear Feet.

YEAR.	South Boston.	East Boston.	Charlestown.	Brighton.	West Roxbury.	Dorchester and Hyde Park.	Roxbury.	City Proper.	Totals.
1907.....	414	1,263	250	908	349	4,781	1,663	534	10,162
1908.....	656	798	.....	2,405	2,399	3,654	4,811	818	15,536
1909.....	723	2,898	.....	214	779	4,833	2,380	5,253	17,080
1910.....	328	1,182	100	983	5,190	8,044	6,810	50	22,687
1911.....	1,718	465	.....	2,098	11,627	14,627	5,806	352	36,693
1912.....	6,045	1,017	229	1,806	7,890	9,669	3,168	407	30,231
1913.....	2,199	557	70	1,221	2,907	10,296	2,716	1,359	21,325
1914.....	4,773	959	.....	1,970	1,520	1,637	901	672	12,432
1915.....	947	265	.....	4,939	2,230	6,928	4,547	331	20,187
1916.....	221	1,996	.....	1,987	2,393	3,378	1,968	638	12,578
Totals....	18,024	11,400	649	18,531	37,284	67,847	34,767	10,409	198,911

New Brick Sidewalks. (Does not include work done on streets laid out and constructed under chapter 393 of the Acts of 1906.)

First Laying. Square Yards.

YEAR.	South Boston.	East Boston.	Charlestown.	Brighton.	West Roxbury.	Dorchester and Hyde Park.	Roxbury.	City Proper.	Totals.
1907.....	455	1,157	223	250	278	856	296	313	3,828
1908.....	217	836	.....	.....	400	958	884	.....	3,295
1909.....	311	2,597	.....	.....	156	406	5,359	.....	8,829
1910.....	1,292	974	42	166	987	596	2,230	.....	6,287
1911.....	520	364	.....	.....	.....	460	1,469	314	3,127
1912.....	2,249	623	.....	.....	.....	208	716	.....	3,796
1913.....	490	465	.....	.....	80	103	647	86	1,871
1914.....	762	379	.....	.....	.....	150	382	585	2,258
1915.....	287	465	.....	150	.....	.....	501	.....	1,403
1916.....	125	175	.....	.....	.....	.....	366	.....	666
Totals....	6,708	8,035	265	566	1,901	3,737	12,850	1,298	35,360

Recapitulation, 1916.

	Edgestones. <i>Linear Feet.</i>	Brick. <i>Square Yards.</i>
South Boston Paving District, No. 1.....	221	125
East Boston Paving District, No. 2.....	1,996	175
Charlestown Paving District, No. 3.....	.....	.....
Brighton Paving District, No. 4.....	1,987	.....
West Roxbury Paving District, No. 5.....	2,393	.....
Dorchester and Hyde Park Paving Districts, Nos. 6, 9-11.....	3,378	.....
Roxbury Paving District, No. 7.....	1,965	366
City Proper Paving Districts, Nos. 8 and 10..	638	.....
Totals.....	12,578	666

**Loads of Dirt and Street Cleanings Removed from February 1,
1916, to January 31, 1917.**

By Paving Service Force.

DISTRICTS.	Single.*	Double.†	Cubic Yards.
South Boston.....	2,766	120	3,006
East Boston.....	163	163	489
Charlestown.....	488	.....	488
Brighton.....	2,492	2,104	6,700
West Roxbury.....	4,019	2,171	8,361
Dorchester.....	403	408	1,219
Roxbury.....	3,790	2,035	7,860
South End.....	686	530	1,746
Ashmont.....	526	1,180	2,886
North End.....	1,034	1	1,036
Hyde Park.....	2,836	858	4,552
Totals.....	19,203	9,570	38,343

* Single load, 1 cubic yard.

† Double load, 2 cubic yards.

*** Loads of Snow Removed from February 1, 1916, to January 31, 1917.**

DISTRICTS.	Single.†	Double.‡	Cubic Yards.	Cost.§
South Boston.....	14,485	594	30,752	\$13,492 37
East Boston.....	933	63	2,055	5,992 93
Charlestown.....	1,641	269	4,089	8,416 05
Brighton.....	157	28	398	8,876 96
West Roxbury.....	2,390	1,614	9,622	13,717 49
Dorchester.....	953	298	2,800	9,603 31
Roxbury.....	1,980	393	5,139	24,916 16
South End.....	3,585	1,988	13,134	22,170 22
Ashmont.....	1,037	922	4,840	5,734 37
North End.....	3,339	196	7,266	|| 19,964 78
Hyde Park.....	914	1,138	5,242	5,464 79
Totals.....	31,414	7,503	58,337	\$138,349 43

* Does not include snow removed by contract.
† Single loads, 2 cubic yards.
‡ Double loads, 3 cubic yards.
§ Includes cost of plowing gutters, cleaning sidewalks and picking ice not carted away.
|| Includes cost of license, engineering, inspection, advertising, etc., on contract work amounting to \$4,315.17.

Snow and Ice Removal by Contract.

From February 1, 1916, to January 31, 1917.

DISTRICTS.	Number of Loads.*	Cubic Yards.	Cost per Cubic Yard.	Total Cost.	
Snow District No. 1.....{	4,902 1,390	17,602½ 5,000	\$0 44 43	\$7,745 10 2,150 00	1915 contract. 1916 contract.
Snow District No. 2.....{	1,279 341	5,200 1,240½	33 42	1,716 01 521 01	1915 contract. 1916 contract.
Snow District No. 3.....{	3,106 311	12,549 1,778½	31 45	3,890 20 800 33	1915 contract. 1916 contract.
Snow District No. 4.....{	4,887 189	17,217½ 1,553½	37 38	6,370 49 590 33	1915 contract. 1916 contract.
Snow District No. 5.....{	2,788 690	9,910½ 2,512½	40 49	3,964 20 1,231 13	1915 contract. 1916 contract.
Snow District No. 6.....{	4,176 922	16,515½ 3,971	37 40	6,110 74 1,588 40	1915 contract. 1916 contract.
Snow District No. 7.....{	4,253 923	14,773½ 3,903½	35 40	5,170 74 1,561 40	1915 contract. 1916 contract.
Totals.....	30,157	113,728	\$0 378	\$43,110 08	

* The capacity of the loads varies from two (2) to ten (10) cubic yards.

Summary of Volume and Cost of Snow Removed, Year Ending January 31, 1917.

WORK DONE BY	Districts.	TEAMS AND AUTO TRUCKS.		TOTAL TEAMS AND AUTO TRUCKS.		Cubic Yards.	Total Cubic Yards.	Cost.	Total Cost.	Cost per Cubic Yard.	Total Cost per Cubic Yard.
		Single.	Double.	Single.	Double.						
Paving Service, day work.....	South Boston.....	14,485	594			30,752		\$13,492 37			
	East Boston.....	933	63			2,055		5,992 93			
	Charlestown.....	1,641	269			4,089		8,416 05			
	Brighton.....	157	28			398		8,876 96			
	West Roxbury.....	2,390	1,614			9,622		13,717 49			
	Dorchester.....	953	298			2,800		9,603 31			
	Roxbury.....	1,980	393			5,139		24,916 16			
	South End.....	3,585	1,988			13,134		22,170 22			
	Ashmont.....	1,037	922			4,840		5,734 37			
	North End.....	3,339	196			7,266		19,964 78			
Paving Service, contracts.....	Hyde Park.....	914	1,138			5,242	58,337	5,464 79	\$138,349 43	\$0 435	
	Snow District No. 1.....		6,292			22,602		\$9,895 10		\$0 375	
	Snow District No. 2.....		1,620			6,440		2,237 02		38	
	Snow District No. 3.....		3,417			14,327		4,690 53		375	
	Snow District No. 4.....		5,076			18,771		6,960 82		445	
	Snow District No. 5.....		3,478			12,423		5,195 33		385	
	Snow District No. 6.....		5,098			20,486		7,699 14		375	
	Snow District No. 7.....		5,176			18,677		6,732 14			\$0 3815
	South Boston.....	4,554				11,840.4	113,726	\$3,197 73	43,410 08	\$0 270	
	East Boston.....	510				1,326		803 71		606	
Street Cleaning Service, day work.	Charlestown.....	700				1,820		787 14		432	
	Dorchester.....	218				566.8		425 10		767	
	Roxbury.....	358				930.8		883 20		948	
	South End, uptown.....	655				1,703.		940 91		552	
	South End, downtown,	30,996				80,589.6		36,813 61		456	
	Back Bay.....	2,190				5,694		3,189 78		560	
	North and West Ends..	30,506				79,315.6		34,055 18		429	
	Patrol System.....	12,766				33,191.6	216,977	27,274 80	7, 108,371 16	821	
	Totals.....						389,040		\$290,130 67		\$0 499

¹ Single loads, 2 cubic yards.

² Double loads, 3 cubic yards.

³ 93,768; cubic yards removed under 1915 contract.

⁴ Includes cost of plowing gutters, cleaning sidewalks and picking ice not carted away.

⁵ Includes Sunday, paid time and one half and holidays double time.

⁶ Capacity of loads varies from 2 to 10 cubic yards.

⁷ Single loads, 2.6 cubic yards.

⁸ Does not include \$13,439.72 spent by Street Cleaning Service for cleaning cross-walks and gutters not carted away.

STREET OPENINGS.

Under Classes 1 and 2 of the schedule of permit fees, permits for openings in public ways were issued as follows:

	Permits.	Length in Feet.
City of Boston Fire Department.....	47	4,276
City of Boston Police Department.....	18	841
City of Boston Schoolhouse Commission.....	7	816
City of Boston Sewer Service.....	255	4,519
City of Boston Water Service.....	1,739	43,763
Boston Consolidated Gas Company.....	1,814	60,181
Boston Elevated Railway Company.....	276	113,435
Charlestown Gas and Electric Company.....	148	5,380
Dedham and Hyde Park Gas and Electric Com- pany.....	63	2,130
East Boston Gas Company.....	159	9,275
Edison Electric Illuminating Company.....	2,745	203,760
New England Telephone and Telegraph Com- pany.....	467	55,660
Miscellaneous.....	2,708	232,395
Bay State Street Railway Company.....	27	1,425
Quincy Market Cold Storage Company.....	12	420
Eastern Cold Storage Company.....	10	735
Western Union Telegraph Company.....	6	175
Emergency Class A.....	910	.....
Emergency Class A, returned as used.....	604	.....
Estimated length.....	.....	15,100
Totals.....	12,015	754,286

Making a total length of openings of about 143 miles.
Permits for occupation of public ways for purposes other than openings have been issued as follows:

Advertising by men wearing lettered hat and coat .	67
Cleaning snow from roof	83
Driving cattle through the streets	8
Dumping snow in public alleys	18
Erecting and repairing awnings	1,320
Erecting and repairing buildings	3,121
Painting or minor repairs	4,317
Feeding horses on streets	626
Moving buildings in streets	24
Placing signs flat on buildings	873
Projecting signs or lamps	668
Raising or lowering safes or heavy machinery . .	237
Carried forward	11,362

<i>Brought forward</i>	11,362
Emergency permits (Class B)	317
Special permits for other than the above purposes	55
Annual permits for other purposes	214
<hr/>	
Total	11,948
Total for openings in public ways	12,015
<hr/>	
Total of all permits issued	<u>23,963</u>

The income from the issuance of permits amounted to \$27,922.44, divided as follows:

Class No. 1.	Openings	\$5,861 50
2.	Emergency openings	569 00
3.	Advertising	71 00
4.	Cleaning snow from roofs	83 00
5.	Driving cattle	40 00
6.	Dumping snow	9 00
7.	Erecting and repairing awnings	660 00
8.	Erecting, alterations and repairs on buildings	15,128 69
9.	Minor repairs on buildings	2,158 50
10.	Feeding horses	626 00
11.	Moving buildings	295 00
12.	Painting signs on fences	0 00
13.	Placing flat signs	448 50
14.	Projecting signs, etc.	668 00
15.	Raising and lowering goods, etc.	245 00
16.	Loading and unloading goods	0 00
17.	Emergency (Class B)	317 00
18.	Special	13 75
19.	Annual permits	728 50
<hr/>		
Total		<u>\$27,922 44</u>

Twenty-two thousand, nine hundred eighty dollars and sixty-five cents cash paid to City Collector. Bills for collection of balance, \$4,941.79.

One thousand, eight hundred and forty-three surety company bonds are on file in the Permit Office. These include twenty thousand, four thousand, three thousand and one thousand dollar bonds.

DEFECTS IN SIDEWALKS AND ROADWAYS.

Four hundred twenty-two notices were sent to property owners to make repairs to sidewalks for the mainte-

nance of which they were responsible. These included steps, portions of buildings encroaching on sidewalks, and defective bulkheads, areas, etc.

Twenty-six thousand three hundred thirty-three notices were sent to district foremen, contractors, public service corporations and others to make repairs in the streets where defects existed on account of work for which they were responsible.

Permits have been issued for the placing of four hundred twenty poles and the removal of one hundred sixty-six poles in accordance with plans filed in this office. Permits have also been issued for the resetting of ten hundred ninety-seven defective poles.

STREET NUMBERING.

Building numbers have been assigned as listed below:

	Entire Streets Num- bered.	Entire Streets Renum- bered.	Partly Num- bered Streets.	Partly Renum- bered Streets.	Estates Num- bered.	Estates Renum- bered.	Figures Issued.
East Boston.....	.....	.....	.....	.....	55	3	151
Charlestown.....	.....	.....	.....	.....	37	.....	84
Boston.....	1	1	6	1	267	14	666
South Boston.....	1	.....	1	.....	101	8	282
Roxbury.....	.....	2	2	.....	220	34	553
West Roxbury.....	1	.....	7	.....	487	20	1,244
Dorchester.....	5	1	21	.....	704	44	1,763
Brighton.....	7	1	10	.....	333	6	617
Hyde Park.....	.....	.....	3	.....	103	7	281
Totals.....	15	5	50	1	2,307	136	5,641

PLANS.

During the year plans were filed as follows:

	Mains.	Poles.	Tracks.	Conduits.	Miscel- laneous.
New England Telephone and Telegraph Company.....		49		77	
Edison Electric Illuminating Company.....		88		393	
Boston Consolidated Gas Company.....	24				
East Boston Gas Company.....	2				
Dedham and Hyde Park Gas and Electric Company.....	4				
Charlestown Gas and Electric Company.....	4				
Boston Elevated Railway Company.....			16	5	1
Eastern Cold Storage Company.....				1	
Boston Fire Department.....				16	
Boston Pneumatic Transit Company.....				1	
Boston Low Tension Wire Association.....				1	
Boston Schoolhouse Commission.....				3	
Bay State Street Railway Company.....		1	3	1	
Boston Police Department.....				1	
Western Union Telegraph Company.....				1	
Boston Auxiliary Fire Alarm.....				2	
Union Freight Railroad Company.....			1		
Miscellaneous.....					40
Totals.....	34	138	20	502	41

Poles, 138; mains, 34; tracks, 20; conduits, 502; miscellaneous, 41; total of 735 plans filed this year, making a total of plans on file of 13,653.

TABLE SHOWING THE UNIT COST OF ASPHALT AND BITULITHIC REPAIRS PER SQUARE YARD OF STREET SURFACE FROM 1907 TO 1916, INCLUSIVE.

Trinidad Asphalt.
City Proper.

Street.	Year Laid.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
Albany street.....	1899	\$0.009	.....	\$0.005	.....	.....	.....	.....	.....	\$0.267	.....
Albany street.....	1884	.086	\$0.124	.401	\$0.346	\$0.284	\$0.235	\$0.150	\$0.174	.311	\$0.059
Andrews street.....	1899	.....	.....	*	.....	.....	.....	.....	.....	.009	.....
Arch street.....	1893	*.082	.....	.....	.....	.....	.....	.....	.....	†	.....
Arch street.....	1893	.....	.329	.145	†	.....	.....	.....	.....	†	.....
Arlington street.....	1901	.....	.....	.....	.....	*.010	.002	.014	.015	.056	.008
Ash street.....	1887	.....	.....	†	.....	.....	.....	.....	.....	.....	.....
Avon street.....	1901	.....	.....	.....	.....	*.028	.023	.146	.045	.139	.064
Barton court.....	1894	.....	.....	.....	.....	.....	.....	.....	*	.....	.....
Batterymarch street.....	1896	.070	.030	.013	.060	.196	.319	.043	.067	.167	.119
Beacon street.....	1891	.107	†.062	.....	.....	.....	.....	.....	.....	.....	.....
Beacon street.....	1891	.....	.100	.064	.074	.192	.....	.053	.....	.....	.....
Beacon street.....	1891-1901	.....	.....	.....	.....	.....	.046	.....	.078	.217	.056

Cost of Trinidad Asphalt Repairs, 1907-16.—Continued.

City Proper.—Continued.

Street.	Limits.	Year Laid.	1916.
Beacon street.....	Easterly side of Dartmouth street to within 150 feet of westerly line of Gloucester street.	1892	.....
Beacon street.....	Dartmouth street to Hereford street..	1909	10.024
Beacon street.....	150 feet from westerly line of Gloucester street to 78 feet beyond westerly line of Gloucester street.	1898	.....
Beacon street.....	78 feet west of Gloucester street to Massachusetts avenue.	1893	.....
Beacon street.....	78 feet west of Gloucester street to Hereford street.	1893	.....
Berkeley street....	Boylston street to 155 feet south of Boylston street.	1902	.....
Bennet street.....	90 feet west of Harrison avenue to 152 feet east of Washington street.	1887	.....
Bennet street.....	Ash street to Harrison avenue.....	1906	.479
Bond street	Hanson street to Milford street.....	1895	.082
Boylston street..	Tremont street to Boylston place.....	1901	.385
Boylston street..	Charles street to Arlington street.....	1901	.062
Boylston street.....	Easterly side of Berkeley street, across Clarendon street.	1897	.043
Boylston street.....	Clarendon street, across Dartmouth street.	1901	.056

Cost of Trinidad Asphalt Repairs, 1907-16.—Continued.

City Proper.—Continued.

Street.	Limits.	1916.
Columbus avenue.....	Massachusetts avenue to 301 feet south of Camden street.	.....
Congress square.....	Congress square to Congress street....	.....
Cooper street.....	North Margin street to Endicott street,	\$0 593
Cooper street.....	Endicott street to Washington Street North.	.....
Corning street..	Washington street to Shawmut avenue.	.....
Court street ..	Washington street to Court square....	..... 290
Court square..	Easterly and southerly side.....	..... 160
Court square ..	West side, from 148 to 8 feet south of Court street.	..... 088
Dartmouth street..	Boylston street to Newbury street....	.....
Dartmouth street.....	Huntington avenue to Boylston street.	..... 276
Dartmouth street.....	Buckingham street to 101 feet north-early.	.....
Davis street.....	Washington street to Harrison avenue.	..... 208
Devonshire street..	Milk street to Water street. ....	..... 291
Devonshire street ..	Milk street to Franklin street.....	..... 420
Dillon street.....	Lenox street to Sawyer street.....	..... 008
Doane street.....	Kilby street to Broad street.....	..... 046

Edinboro' street.....	1895	.061	.068	.170	.093	.377	1.229					
Cooper street, across Thacher street..	1899			*	.154	.177	.163	.378	.067	.027	.194	
Congress street to Kilby street.....	1903							*	.059	.099		
Washington street to Shawmut avenue,	1892	.022	.045	.045	.115	.041	.079	.031	.061	.144	.194	
Hanover street to North street.....	1892	.028	.237	.162	.029	.222	.209	.107	.012	.056	.299	
Hanover street to North street.....	1904										.030	
22 feet south of Kneeland street to 22 feet north of Harvard street.	1899			*	.271	.250	.189	.211	.320	.170	.113	
East Newton street to East Springfield street.	1888-95	.221	.369	.233	.291	.258	.378	.081	.132	.714	.169	
Asylum street, across Davis street....	1901					*.231	.337	.150	.305	.886	.253	
North side Decatur street, across Gloucester place.	1905									*.994		
Waltham street to Malden street.....	1903							*.193	.060	.657	.181	
Malden street to East Dedham street,	1909								*	.262	.141	
East Springfield street to 90 feet southerly.	1888	.195	.890	.078	.308		.080	.216	.353	.336	.602	
Congress street to Kilby street.....	1904								*	.050	.089	
Tremont street, toward Washington street.	1891	.173	.002	.073	.227	.295	.072	.080	.055		.144	
Beach street to 90 feet north of Curve street (minus Kneeland and Har- vard streets intersection).	1891	.149	.175	.142	.178	.368	.224	.188	.305	.218	.142	
Boylston street, across Dartmouth street.	1901					*.037	.033	.007	.012	.027	.054	
Bridge over Boston & Albany Rail- road to 70 feet southerly.	1909								*	.050		

[illegible]

Cost of Trinidad Asphalt Repairs, 1907-16.—Continued.

City Proper.—Concluded.

Street.	Limits.	1916.
Public Alley No. 428..	Between Commonwealth avenue and Marlborough street, from Gloucester street to 205 feet east of Herford street.	30.422
Spring street	Poplar street to Leverett street..	.....
Stevens street.....	Lincoln place, toward Shawmut ave...	.....
Stillman street ..	Endicott st., across North Margin st..	.189
Stoddard street.....	Howard street to Court street.....	.543
Sun-court street..	North street to Moon street.....	.139
Temple place	Washington street to Tremont street.	.025
Thacher street	Washington St North to Endicott st.,	.214
Tilston street.....	Unity street to Salem street.....	.....
Tilston street.....	Hanover street to Unity street .....	.....
Tremont street..	Scolley square to Boylston street (minus Beacon street intersection).	.....
Trinity place....	St. James ave., across Stanhope street,	.....
Unity street	Charter street to Tilston street.....	.284
Warrenton street.....	Elliot street to Tremont street..	.063
Warrenton street.....	Shawmut avenue to Washington street,	.329
Water street.....	Congress street to Kilby street.....	.050
Water street.	Liberty square to Broad street..	.155
		.051

Wiget street.....	Salem street to North Margin street....	1897	.060	.186	.045	.046	.342	.159	.029	.066	.010	.506
Wiggin street.....	North Bennet street to Tileston street,	1887										

Charlestown.

Austin street.....	Seminary place to Lawrence street....	1891	\$0.124	\$0.151	\$0.142	\$0.173	\$0.821	\$0.109	\$0.087	\$0.164	\$0.199.	\$0.372
Bunker Hill street.....	At Tufts street.....	1897								.064		
Corey street.....	124 feet north of Moulton street to Moulton street.	1897	.266	.238		.132	.247		.194	.121	.220	
Joiner street.....	Park street to Chelsea street.....	1906										
Moulton street.....	Easterly side of Corey st. to Vine st.,	1897		.025			.030		.043	.034	.200	
Moulton street.....	Vine street to Bunker Hill street.....	1897		.007	.008	.032	.095		.044	.029	.099	
Tufts street.....	Bunker Hill street, 141 feet northerly,	1897	.038	.070	.044		.154		.035	.042		
Vine street.....	Bunker Hill street, across Moulton st.,	1897		.031	.007	.027	.039		.049	.010		
Washington Street North,	Over Fitchburg Railroad.....	1899	1.272	.632	.503	1.099	.039	.154	.164	.098	.405	.246

South Boston.

D street.....	West Fifth street to Gold street.....	1899	\$0.137	\$0.302	\$0.126	\$0.388	\$0.284	\$0.204	\$0.211	\$0.240	\$0.770	\$0.203
E street.....	West Third street to Bokton street....	1892		.213	.026	.225	.056	.075	.018	.229		.389
E street.....	West Seventh st. to West Eighth st.,	1904								* .056		
I street.....	East Broadway to East Fourth street,	1910				*			.001	.003		
Rogers street.....	Dorchester street to Preble street.....	1891		.074		.111				.068		
West Sixth street.....	160 feet east of C st., toward D street,	1905									*	.084
West Third street.....	153 feet west of E street, across E st.,	1892	.027	.117	.007	.134	.002	.016		.067	.174	.020

Cost of Trinidad Asphalt Repairs, 1907-16.— Concluded.

Roxbury.

STREET.	Year Laid.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
Cabot street.....	1891	\$0.089	\$0.078	\$0.014	\$0.144	\$0.178	\$0.173	\$0.048	\$0.107	\$0.054	\$0.030
Cabot street.....	1892	.....	.100	.108	.089	.038	.107	.030	.042	.049	.051
Cabot street.....	1897	.013	.161	.024	.011	.058	.006	.030	.042	.056	.005
Columbus avenue.....	1896	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Roxbury street.....	1904	.....	.....	.....	.....	.....	.....	.....	*.024	.117	.....

Cost of Sicilian Rock Asphalt Repairs, 1907-16.

City Proper.

STREET.	Year Laid.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
Acton street.....	1896	\$0.018	\$0.128	\$0.095	\$0.052	\$0.021	\$0.241	\$0.037	\$0.037	\$0.036	.....
Arch street.....	1901	.....	.....	.....	.....	*.011	.028	.005	.207	†	.....
Ash street.....	1895	.070	.....	†	.....	.....	.....	.....	.....	.....	.....
Avery street.....	1897	.....	.096	.100	.....	.261	.144	.....	†	.....	.....
Barton street.....	1895	.035	.101	.005	.025	.134	.054	.084	.011	.661	.....

Beacon street.....	1901	Arlington street to Dartmouth street,	.....	.....	.....	* .161	.039	.072	.072	.058	.041
Boylston street.....	1900	Arlington street to Berkeley street....	.....	.....	.....	* .329	.154	.020	.....	§	.....
Bradford street.....	1897	Waltham street to Shawmut avenue..	.018	.010	.021	.005	.034	.011	.031	.033	.014
Cobb street.....	1897	Washington street to Shawmut ave....	.006	.008	.....	.047	.032	.....	.024	.....	.....
Decatur street.....	1892	Washington street to Harrison ave....	.187	.460	.004	.379	.283	.187	.127	.064	.449
Dwight street.....	1893	Shawmut avenue to Tremont street...	.041	.005	.025	.028	.050	.280	.043	.001	.066
East Concord street.....	1897	At Albany street (crosswalk).....	.....	.....	.....	.....	.170	.....	.....	.....	.....
Essex place.....	1901	Essex street to Tufts street.....	.....	.....	.....	.....	*.135	.038	.141	.020	.367
Exeter place.....	1897	Chauncy street to Harrison avenue...	.105	.008	.....	.074	.045	.025	.....	.031	.052
Fabin street.....	1895	Newland street to Ivanhoe street.....	.....	.008	.....	.....	.....	.058	.101	.....	.013
Fay street.....	1894	Dover street to Harrison avenue.....	.020	.084	.015	.033	.375	.016	.032	.....	.095
Hamburg street.....	1896	Mystic street to Harrison avenue.....	.020	.010	.010	.....	.....	.089	.039	.....	.008
Hanover street.....	1896	Tileston street, across Charter street..	.122	.234	.137	.344	.310	.486	.187	.379	.451
Harrison avenue.....	1903	Northampton street to Lenox street...	.....	.....	.....	.....	.....	*.043	.054	.305	.....
Huntington avenue.....	1896	Boston & Albany Railroad to Massa- chusetts avenue.	.035	.039	.128	.042	.037	.059	.043	.061	.051
India street.....	1901	Milk street to India square.....	.....	.....	.....	.....	.536	.215	.224	.365	.268
Marlborough street.....	1901	Arlington street to Clarendon street...	.....	.....	.....	.....	.006	.027	.016	.005	.002
Mason street.....	1894	From 213 feet south of West street to 444 feet south of West street.	†	.....	.....	.....	.....	.....	.....	.....	.....
Mason street.....	1901	West street to 213 feet south of West street.	.....	.....	.....	.....	.104	.055	.061	.059	.053
Massachusetts avenue.....	1894	Washington street to Harrison avenue (southerly roadway).	.002	.029	.014	.080	.058	.071	.138	.066	.268

[illegible]

South Boston.

	1895	\$0.000	.....	\$0.073	.....	*	\$0.102	.....	\$0.031	\$0.056	.....
Athens street.....	1895	\$0.000	.....	\$0.073	.....		\$0.102	.....	\$0.031	\$0.056	.....
Athens street.....	1892	.010	.....	.064	.....		.059	.....		.121	.....
Athens street.....	1901	.....	.....	.....	.....	*	.172	.....		.226	.....
Bowen street.....	1901	.....	.....	.....	.....	*	.125	\$0.002	.021	.115	\$0.036
East Broadway.....	1897	.048	\$0.052	.....	\$0.071	*	.....	.032	.011	.063	.....
Gold street.....	1901	.....	.....	.....	.....	*\$0.004	.111	.....	.012	.048	.....
K street.....	1896	.106	.056	.094	.215	.050	.....	.443	.049	.130	.221
Silver street.....	1901	.....	.....	.....	.....	*	.193	.....	.047	.033	.008
Tudor street.....	1901	.....	.....	.....	.....	*	.193	.....	.008	.....	.....
West Broadway.....	1892	.200	.274	.271	.352	.306	.105	.271	.307	.559	.495
West Broadway.....	1893	.246	.440	.298	.489	.306	.312	.221	.428	.352	.433
West Broadway.....	1897	.023	.133	.049	.143	.117	.099	.059	.121	.145	.....
West Broadway.....	1898	.029	.037	.035	.084	.081	.022	.082	.132	.021	.319

Cost of Seyssel Rock Asphalt Repairs, 1907-16.

STREET.	Year Laid.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
Genesee street.....	1899	\$0.016	\$0.010	\$0.034	\$0.069	\$0.040	\$0.127	\$0.042	\$0.205	\$0.004	\$0.048
Mason street.....	1899	.097	.086	† .025							
Mason street.....	1899							.127	.049		.140
Milton street.....	1899				.026	.052		.058		.099	
Oswego street.....	1899	.099	.022	.032	.041	.038	.075	.010	.082	.025	.050
Paul street.....	1897-99	.023	.077		.056	.299	.042	.017	.081		.198
Paul street.....	1897-99	.028	.094	.040	.138	.175	.065	.069	.083		.240
Pelham street.....	1897	.013	.042	.078	.027	.028	.193	.105	.290	.145	
Waterford street.....	1897	.085	.093	.047	.131	.184	.168		.190		

* Guaranty expired.

† Part repaved.

‡ Repaved with wood block.

Cost of Acme Asphalt Repairs, 1914-16.

Byway.	Limits.	Year Laid.	1914.	1915.	1916.
Court square.....	East of north of Williams court and east roadway to west of Court street to 200 feet	1913	.....	.....	\$0.023
Massachusetts avenue.....	Tremont street to Columbus avenue ..	1910	.....	.....	.002
Massachusetts avenue.....	Boylston street to Boston & Albany Railroad Bridge.....	1909	\$0.034	\$0.033	.106
Massachusetts avenue.....	Shawmut avenue to Tremont street.....	1910	.....	.....	.004
Massachusetts avenue.....	Washington street to Shawmut avenue.....	1910	.....	.....	.006
Wheeler street.....	Shawmut avenue to Corning street.....	1909	.....	.....	.022

Summary of Table Showing the Cost of Asphalt Repairs, 1907-16.

YEAR.	Contract Awarded to	CONTRACT PRICES.			AREAS AND COST.			
		Asphalt Surface and Binder per Square Yard.	Concrete Base per Square Yard.	Extra Binder per Cubic Yard.	Total Area Not Under Guaranty Maintained by the City. Square Yards.	Cost of Maintenance for Current Year.	Unit Area Repaired.	Unit Cost per Square Yard.
1907.....	Barber Asphalt Paving Company.....	\$2 50	\$0 75	\$0 00	140,821	\$10,808 44	.0305	\$0 077
1908.....	Warren Brothers Company.....	1 73	75	7 50	125,676	15,793 80	.0667	116
1909.....	Jones & Meehan.....	1 62	75	8 00	131,688	9,945 24	.0463	076
1910.....	Barber Asphalt Paving Company.....	1 49	1 00	8 00	139,829	15,632 74	.0742	112
1911.....	Warren Brothers Company.....	1 34	1 00	9 00	218,007	27,504 52	.0930	125
1912.....	Warren Brothers Company.....	1 24	1 10	11 00	223,848	26,397 97	.0933	118
1913.....	Warren Brothers Company.....	1 37	1 15	11 00	226,837	22,839 01	.0729	101
1914.....	Central Construction Company.....	1 19	1 00	11 00	237,204	23,384 52	.0821	099
1915.....	Central Construction Company.....	1 06	1 00	11 00	238,545	40,633 82	.1550	170
1916.....	Central Construction Company.....	1 16	2 50	4 00	280,268	25,941 25	.0796	093

All contracts advertised and awarded to lowest bidder except in 1907.

Cost of Bitulithic Repairs, 1907-16.

STREETS.	Limits.	Year Laid.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.	1916.
Belvidere street.....	West Newton street to Massachusetts avenue.	1903	.....	.....	.....	.....	.....	.....	\$0.078*	\$0.034	\$0.768	.....
Berkeley street.....	Boylston street to Beacon street.....	1903	.....	.....	.....	.....	.....	.....	* .005	.001	.005	.....
Bowdoin street.....	Ashburton place to Cambridge street,	1902	.....	.....	.....	.....	.....	*	.184	.075	.219	.....
Clarendon street.....	Boylston street to Beacon street.....	1905	.....	.....	.....	.....	.....	.....	.....	.....	* .011	.....
Dartmouth street.....	Newbury street to Beacon street.....	1903	.....	.....	.....	.....	.....	.....	*	.001	.049	.....
Emerald street.....	Castle street to Dover street.....	1904	.....	.....	.....	.....	.....	.....	.....	* .004	.005	.....
Gainsborough street.....	Huntington avenue to N. Y., N. H. & H. R. R.	1903	.....	.....	.....	.....	.....	.....	*	.032	.....	.....
Hancock street.....	Mt. Vernon street to Cambridge street,	1902	.....	.....	.....	.....	.....	*	.009	.027	.167	.....
Harrison avenue.....	East Springfield street to Northamp- ton street.	1905	.....	.....	.....	.....	.....	.....	.....	.....	*	\$ .279
Massachusetts avenue.....	Columbus avenue to Huntington ave- nue.	1903	.....	.....	.....	.....	.....	.....	* .094	.092	.834	.051
Massachusetts avenue.....	Beacon street to Harvard Bridge.....	1902	.....	.....	.....	.....	.....	*	.300	.127	.843	.017
Maverick street.....	London street to Havre street.....	1903	.....	.....	.....	.....	.....	.....	* .013	.....	.....	.023
Oneida street.....	Harrison avenue to Albany street.....	1903	.....	.....	.....	.....	.....	.....	*	.005	.038	.127
Roxbury street.....	Shawmut avenue to Kent street.....	1904	.....	.....	.....	.....	.....	.....	.....	* .005	.....	.442
Smith street.....	St. Alphonsus street to Phillips street.	1904	.....	.....	.....	.....	.....	.....	.....	* .040	.....	.....

	1902	.....	.....	.....	*	.....	.042	.018	.....
Tremont street.....	St. Alphonsus street to Phillips street.	.....	.....	.....	.....	.....	.....	.....	.....
West Newton street.....	Tremont street to Columbus avenue,	.....	.....	.....	.....	.....	.....	* .003	.100
West Newton street.....	Columbus avenue to Huntington ave- nue.	.....	.....	.....	.....	.....	* .014	.062	.098
West Newton street.....	Huntington avenue, across Belvidere street.	.....	.....	.....	.....	.....	* .014	.046	.653

† Guaranty expired in this year.

Summary of Table Showing Cost of Bitulithic Repairs, 1913-16.

YEAR.	Contract Awarded to	CONTRACT PRICES.					AREAS AND COST.			
		Bitulithic Full Depth Patches per Square Yard.	Bitulithic Surface Patches per Square Yard.	Concrete Base per Square Yard.	Extra Binder per Cubic Yard.	Flush Cost per Square Yard.	Total Area Not Under Guaranty Maintained by the City. Square Yards.	Cost of Maintenance for Current Year.	Unit Area Repaired.	Unit Cost per Square Yard.
1913.....	Warren Brothers Company *	\$1 37	† \$0 80	\$1 15	\$11 00	.....	40,888	\$1,625 60	.0309	\$0.040
1914.....	Central Construction Co.*..	1 09	52	1 00	11 00	† \$0 07	62,315	1,417 89	.0531	.023
1915.....	Central Construction Co.*..	1 06	50	1 00	11 00	† 07	83,473	10,396 54	.1685	.125
1916.....	Central Construction Co.*..	1 11	50	2 50	4 00	.....	98,298	1,666 65	.0129	.018

* Advertised and awarded to lowest bidder.

† By agreement.

LIST OF STREETS HAVING A SMOOTH PAVEMENT.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Academy Hill road (Brighton).....	At Washington street. Bitulithic. Laid by Warren Brothers Company....	3	17	1913	Oct. 24, 1918.
Acton street (city proper).....	10 feet west of Washington street to 6 feet east of Bradford street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	243	329	1896	
Acton street (city proper).....	6 feet east of Bradford street to Bradford street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	6	8	1897	
Adams street (Roxbury).....	East side of Eustis street. Bitulithic. Laid by John F. Beatty.....	2	8	1914	Sept. 4, 1919.
Adams street (Roxbury).....	At Dudley street. Brick block. Laid by James Doherty.....	7	20	1910	
Albany street (city proper).....	82 feet north of Broadway to 27 feet north of Broadway. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	55	204	1899	
Albany street (city proper).....	27 feet north of Broadway to 13 feet north of the south side of Way street. Wood block. Laid by New York, New Haven & Hartford Railroad Company.	55	204	1913	
Albany street (city proper).....	7 feet north of Stoughton street to 17 feet south of East Concord street. Bitulithic. Laid by Warren Brothers Company. Laid on existing base.	309	1,854	1905	
Albany street (city proper).....	17 feet south of East Concord street to 225 feet north of Massachusetts avenue. Trinidad asphalt. Laid by the Barber Asphalt Paving Company.	446	2,676	1884	
Albany street (city proper).....	225 feet north of Massachusetts avenue to Massachusetts avenue. Bitu- lithic. Laid by Warren Brothers Company.	225	1,350	1905	
Albany street (Roxbury).....	44 feet south of Hampden street to Eustis street. Bitulithic. Laid by Warren Brothers Company.	1,613	4,900	1907	Aug. 3, 1917.
Algonquin street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	3	11	1913	Oct. 21, 1918.
Allen street (city proper).....	Charles street to 2 feet east of Charles street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	2	6	1909	

List of Streets Having a Smooth Pavement — Continued.

Streets.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Allen street (city proper)	2 feet east of Charles street to Chambers street. Bitulithic. Laid by Warren Brothers Company.	1,295	3,550	1905	
Andrews street (city proper)	East Dedham street to East Canton street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	201	290	1899	
Appleton street (city proper)	4 feet north of Berkeley street to Berkeley street. Bitulithic. Laid by Warren Brothers Company.	4	18	1906	
Appleton street (city proper)	Berkeley street to 4 feet south of Berkeley street. Bitulithic. Laid by Warren Brothers Company.	4	18	1906	
Appleton street (city proper)	4 feet south of Clarendon street. Bitulithic. Laid by Warren Brothers Company.	564	2,180 314	1916 1916	Nov. 5, 1921. Nov. 5, 1921.
Appleton street (city proper)	3 feet north of Clarendon street to Clarendon street. Bitulithic. Laid by Warren Brothers Company.	3	15	1914	Sept. 25, 1919.
Appleton street (city proper)	Clarendon street to 3 feet south of Clarendon street. Bitulithic. Laid by Warren Brothers Company.	3	14	1914	Sept. 25, 1919.
Appleton street (city proper)	3 feet south of Clarendon street to 8 feet north of Dartmouth street. Acme asphalt (macadam base). Laid by Warren Brothers Company. Brick block. Laid by Warren Brothers Company.	557	2,151 310	1916 1916	Nov. 5, 1921. Nov. 5, 1921.
Appleton street (city proper)	8 feet south of Dartmouth street to 91 feet south of Clarendon street. Bitulithic. Laid by Warren Brothers Company.	293	1,140 163	1916 1916	Nov. 5, 1921. Nov. 5, 1921.
Appleton street (city proper)	91 feet north of West Canton street to 10 feet north of Columbus avenue. Bitulithic. Laid by Fred S. & A. D. Gore Corporation.	177	1,153	1912	Aug. 2, 1917.
Appleton street (city proper)	10 feet north of Columbus avenue to Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	10	96	1906-07	

Arch street (city proper)	Milk street to Franklin street. Residual asphalt. Laid by Central Construction Company.	416	1,203	1915	
Arch street (city proper)	9 feet south of Franklin street to 12 feet north of Summer street. Residual asphalt. Laid by Central Construction Company.	382	1,303	1915	
Arch street (city proper)	12 feet north of Summer street to Summer street. Wood block. Laid by Northern Construction Company.	12	63	1915	Aug. 16, 1920.
Arch street (city proper)	Near Summer street. Trinidad asphalt. Laid by Northern Construction Company.	.....	150	1915	July 28, 1920.
Ardent street (West Roxbury)	Colberg avenue to Belgrade avenue. Aztec asphalt. Laid by Central Construction Company.	290	840	1916	Aug. 16, 1921.
Arlington street (city proper)	13 feet south of Boylston street to Boylston street. Wood block. Laid by Clarke & Gore.	13	60	1915	Oct. 9, 1920.
Arlington street (city proper)	Boylston street to 18 feet north of Boylston street. Wood block. Laid by Clark & Gore.	18	100	1915	Oct. 9, 1920.
Arlington street (city proper)	18 feet north of Boylston street to Beacon street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	1,300	7,251	1901	
Ash street (city proper)	Bennet street to Nassau street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	226	440	1905	
Ash street (city proper)	North side of Nassau street to 6 feet north of Oak street. Acme asphalt. Laid by Warren Brothers Company.	216	379	1909	
Ashburton place (city proper)	Somerset street to 55 feet east of Bowdoin street. Bitulithic. Laid by Warren Brothers Company.	278	665	1904	
Ashburton place (city proper)	55 feet east of Bowdoin street to Bowdoin street. Bitulithic. Laid by Warren Brothers Company.	48	111	1911	
Ashby street (Brighton)	At Commonwealth avenue. Wood block. Laid by Clark & Gore.....	19	75	1915	Sept. 2, 1920.
Aspinwall road (Dorchester)	Talbot avenue to 22 feet east of Talbot avenue. Brick block. Laid by James Doherty.	22	98	1911	
Aspinwall road (Dorchester)	22 feet east of Talbot avenue to 29 feet east of Talbot avenue. Brick crosswalk.	7	37	1907	
Aspinwall road (Dorchester)	At Washington street. Wood block. Laid by William J. Barry.....	10	56	1913	Oct. 21, 1918.

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Astor street (Roxbury)	At Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	4	13	1901	
Athens street (South Boston)	West Second street to A street. Sicilian rock asphalt; bituminous concrete base. Laid by Boston Asphalt Company.	614	902	1895	
Athens street (South Boston)	B street to C street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	503	728	1892	
Athens street (South Boston)	C street to D street. Sicilian rock asphalt. Laid by Jones & Meehan.....	508	734	1901	
Auburn street (city proper)	8 feet south of Leverett street to Chambers street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	247	556	1911	
Auburn street (city proper)	Chambers street to Poplar street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	367	764	1911	
Auburn street (Roxbury)	Ruggles street to 7 feet south of Ruggles street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	7	20	1907	Aug. 23, 1917.
Auburn street (Roxbury)	7 feet north of Vernon street to Vernon street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	7	20	1907	Nov. 30, 1917.
Austin street (Charlestown)	8 feet west of Seminary place to 5 feet east of Lawrence street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	143	413	1891	
Avenue Louis Pasteur (Roxbury)	121 feet north of Longwood avenue to Longwood avenue. Brick block. Laid by James Doherty.	121	1,244	1910	
Avery street (city proper)	Washington street to 10 feet west of Washington street. Wood block. Laid by Coleman Brothers.	10	30	1914	Nov. 6, 1919.
Avery street (city proper)	10 feet west of Washington street to Tremont street. Bitulithic. Laid by Coleman Brothers.	415	1,200	1914	Nov. 6, 1919.
Avon street (city proper)	Washington street to 9 feet east of Washington street. Wood block. Laid by United States Wood Preserving Company.	9	20	1906	

Avon street (city proper).....	9 feet east of Washington street to Chauncy street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	428	1,061	1901
Barton court (city proper).....	Barton street to Brighton street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	134	182	1904
Barton street (city proper).....	Leverett street to Chambers street and Chambers street to 5 feet north of Milton street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	380	645	1895
Barton street (city proper).....	5 feet north of Milton street to Milton street. Seymsel rock asphalt. Laid by Jones & Meehan.	5	8	1899
Batterymarch street (city proper).....	93 feet west of Broad street to 7 feet east of Milk street. American rock asphalt. Laid by Jones & Meehan.	206	659	1909
Batterymarch street (city proper).....	7 feet east of Milk street to Milk street. Wood block. Laid by James Doherty.	7	21	1911
Batterymarch street (city proper).....	Milk street to 7 feet west of Milk street. Wood block. Laid by James Doherty.	7	21	1911
Batterymarch street (city proper).....	7 feet west of Milk street to Liberty square. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	143	445	1896
Beacon street (city proper).....	Charles street to 6 feet west of Arlington street (south side). Trinidad asphalt. Laid by Barber Asphalt Paving Company.	.....	2,108	1901
Beacon street (city proper).....	Charles street to east side of Brimmer street (north side). Trinidad as- phalt. Laid by Barber Asphalt Paving Company.	495	2,228	1891
Beacon street (city proper).....	Easterly side of Brimmer street to 6 feet west of Arlington street (north side). American rock asphalt. Laid by Jones & Meehan.	364	1,519	1908
Beacon street (city proper).....	6 feet west of Arlington street to 5 feet east of Dartmouth street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	1,851	9,906	1900-01
Beacon street (city proper).....	5 feet east of Dartmouth street to easterly side of Hereford street. Trini- dad asphalt. Laid by Barber Asphalt Paving Company.	2,285	12,134	1909
Beacon street (city proper).....	Easterly side of Hereford street to Massachusetts avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	703	3,754	1907
Beacon street (city proper and Rox- bury).	Massachusetts avenue to 10 feet east of Ralcigh street. Wood block. Laid by Central Construction Company.	.....	2,229	1913

July 3, 1918.

Sept. 16, 1917.

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Beacon street (city proper and Roxbury).	Massachusetts avenue to 10 feet east of Raleigh street. Wood block. Laid by United States Wood Preserving Company.	1,517	5,863	1901	
Beacon street (Brighton).....	1,011 feet west of east street line of Reservoir lane to Newton line. Concrete road. Laid by city forces.	2,308	6,371	1916	
Belvidere street (city proper and Roxbury).	West Newton street to 3 feet east of Massachusetts avenue. Bitulithic. Laid by Warren Brothers Company.	1,324	4,025	1902-03	
Belvidere street (Roxbury).....	3 feet east of Massachusetts avenue to Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	3	12	1901	
Bennet street (city proper).....	East side of Ash street to Harrison avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	248	469	1905	
Bennington street (East Boston).....	Bridge over Boston & Albany Railroad. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	60	507	1906	
Benton street (Roxbury).....	At Columbus avenue. Bermudes asphalt. Laid by Boston Asphalt Company.	27	69	1908-07	
Berkeley street (city proper).....	Tremont street to Columbus avenue. Bitulithic. Laid by Warren Brothers Company.	1,195	4,663	1906	
Berkeley street (city proper).....	156 feet south of Boylston street to 38 feet south of Boylston street. (East side). Trinidad asphalt. Laid by Barber Asphalt Paving Company. (West side.) Trinidad asphalt. Laid by Barber Asphalt Paving Company.	118 {	248 200	1906 1902	
Berkeley street (city proper).....	38 feet south of Boylston street to 15 feet south of Boylston street. Trinidad asphalt. Laid by Coleman Brothers.	23	75	1914	Nov. 3, 1919.
Berkeley street (city proper).....	15 feet south of Boylston street to Boylston street. Wood block. Laid by Coleman Brothers.	15	92	1914	Nov. 3, 1919.
Berkeley street (city proper).....	Boylston street to 15 feet north of Boylston street. Wood block. Laid by Coleman Brothers.	15	66	1914	Nov. 3, 1919.
Berkeley street (city proper).....	15 feet north of Boylston street to 119 feet north of Boylston street. Bitulithic. Laid by Coleman Brothers in 1914; Warren Brothers in 1903.	104 {	430 32	1914 1903	Nov. 3, 1919.

Berkeley street (city proper).....	119 feet north of Boylston street to south street line of Commonwealth avenue. Bitulithic. Laid by Warren Brothers Company.	448	1,992	1903	
Berkeley street (city proper).....	South street line of Commonwealth avenue to north street line of Commonwealth avenue. Bitulithic (macadam base). Laid by Warren Brothers Company.	200	879	1916	Nov. 22, 1921.
Berkeley street (city proper).....	North street line of Commonwealth avenue to 3 feet south of Marlborough street. Bitulithic. Laid by Warren Brothers Company.	262	1,164	1903	
Berkeley street (city proper).....	East side of Marlborough street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	5	25	1901	
Berkeley street (city proper).....	North side of Marlborough street to Beacon street. Bitulithic. Laid by Warren Brothers Company.	262	1,164	1903	
Bernard street (Dorchester).....	At Talbot avenue (crosswalks). Brick block. Laid by James Doherty....	23	155	1911	
Berwick park (city proper).....	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1906-07	
Bickford street (Roxbury).....	At Heath street. Brick block. Laid by Field, Barker & Underwood, Inc..	8	23	1910	
Binney street (Roxbury).....	At Longwood avenue. Brick block. Laid by Field, Barker & Underwood, Inc.	8	32	1910	
Birch street (West Roxbury).....	Penfield street to 6 feet east of Albano street. Bitulithic. Laid by A. H. Archer.	346	898	1915	Sept. 30, 1920.
Birch street (West Roxbury).....	6 feet west of Albano street to 416 feet west of Albano street. Bitulithic. Laid by A. H. Archer.	410	1,048	1915	Sept. 30, 1920.
Bird street (Dorchester).....	At Hancock street. Brick block. Laid by Central Construction Company.	10	29	1910-11	
Blagden street (city proper).....	Huntington avenue to Exeter street. Bitulithic. Laid by Fred S. & A. D. Gore Corporation.	489	1,882	1912	Aug. 17, 1917.
Blossom street (city proper).....	At Parkman street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	1	3	1898	
Blue Hill avenue (Roxbury).....	At Dudley street. Brick block. Laid by James Doherty.....	9	41	1910	
Blue Hill avenue (Roxbury).....	Dewey street to north side of Savin street. Bitulithic. Laid by Warren Brothers Company.	598	1,528	1906	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Blue Hill avenue (Roxbury).....	Brunswick street to north side of Devon street. Bitulithic. Laid by Warren Brothers Company.	199	509	1906	
Bolton street (South Boston).....	C street to D street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	501	724	1905	
Bond street (city proper).....	Hanson street to Milford street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	182	404	1895	
Boston street (South Boston).....	4 feet north of Ralston street to New York, New Haven & Hartford Railroad Bridge. Wood block. Laid by National Safety Wood Preserving Company.	193	531	1911	
Bosworth street (city proper).....	At Tremont street. Wood block. Laid by Coleman Brothers.....	13	28	1915	June 20, 1920.
Bowdoin street (city proper).....	Beacon street to north side of Ashburton place. Brick.....	380	1,013	1902	
Bowdoin street (city proper).....	North side of Ashburton place to 17 feet south of Cambridge street. Bitulithic. Laid by Warren Brothers Company.	837	2,205	1902	
Bowdoin street (Dorchester).....	96 feet west of Winter street to Hancock street. Brick block. Laid by Central Construction Company.	310	{ 1,438 993	1910-11 1913	Sept. 12, 1918.
Bowdoin street (Dorchester).....	East side of Quincy street to 78 feet west of Mt. Ida road. Wood block. Laid by James Doherty.	386	1,885	1909	
Bowdoin street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	14	100	1912	Oct. 21, 1918.
Bowen street (South Boston).....	C street to D street. Sicilian rock asphalt. Laid by Jones & Meehan.....	509	735	1901	
Bowen street (South Boston).....	D street to E street. Sicilian rock asphalt. Laid by Jones & Meehan.....	514	742	1901	
Bowen street (South Boston).....	E street to F street. Bitulithic. Laid by Warren Brothers Company.....	500	722	1903	
Bowen street (South Boston).....	At Dorchester street. Bitulithic. Laid by Warren Brothers Company.....	4	6	1905	
Boylston street (city proper).....	9 feet west of Tremont street to the west street line of Boylston place. Wood block. Laid by Fred S. Gore.	352	1,327	1916	April 1, 1920.

Boylston street (city proper).....	West street line of Boylston place to 89 feet east of Carver street. Wood block. Laid by United States Wood Preserving Company.	155	569	1901	
Boylston street (city proper).....	89 feet east of Carver street, across Arlington street. Wood block. Laid by Clark & Gore.	1,192	8,883	1915	Oct. 9, 1920.
Boylston street (city proper).....	Arlington street, across Berkeley street. Wood block. Laid by Coleman Brothers.	776	4,251	1914	Nov. 3, 1919.
Boylston street (city proper).....	Berkeley street, across Clarendon street. Wood block. Laid by Coleman Brothers.	612	3,400	1914	Nov. 3, 1919.
Boylston street (city proper).....	At Huntington avenue. Bitulithic. Laid by Coleman Brothers.....		68	1914	Nov. 3, 1919.
Boylston street (city proper).....	Clarendon street, across Dartmouth street. Wood block. Laid by Coleman Brothers.	650	3,543	1914	Nov. 3, 1919.
Boylston street (city proper).....	Dartmouth street to east side of Exeter street. Wood block. Laid by Coleman Brothers.	548	3,044	1914	Nov. 3, 1919.
Boylston street (city proper).....	At Exeter street (in tracks). Wood block. Laid by Coleman Brothers.....		68	1914	Nov. 3, 1919.
Boylston street (city proper).....	East side of Exeter street to 107 feet west of Exeter street. Bitulithic. Laid by Coleman Brothers.	144	417	1914	Nov. 3, 1919.
Boylston street (city proper and Roxbury).	107 feet west of Exeter street to 8 feet east of Hereford street. Bitulithic. Laid by Warren Brothers Company.	1,501	5,481	1913	Aug. 13, 1918.
Boylston street (Roxbury).....	14 feet west of St. Cecilia street to 5 feet east of Massachusetts avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	221	778	1904	
Boylston street (Roxbury).....	5 feet east of Massachusetts avenue to Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	5	17	1901	
Boylston street (Roxbury).....	Massachusetts avenue to 3 feet west of Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	3	12	1901	
Boylston street (Roxbury).....	3 feet west of Massachusetts avenue to westerly street line of Hemenway street. Bitulithic. Laid by Warren Brothers Company.	387	1,384	1905	
Bradford street (city proper).....	Waltham street to Shawmut avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	583	1,233	1897	
Bradlee street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	3	11	1913	Oct. 21, 1918.

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Brattle square (city proper)	7 feet north of Brattle street to 6 feet south of Elm street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	268	683	1888	
Brighton avenue (Brighton)	8 feet east of Harvard avenue to 8 feet west of Harvard avenue. Bitulithic. Laid by Coleman Brothers.	37	247	1914	Aug. 7, 1919.
Brighton avenue (Brighton)	At Harvard avenue (street car tracks). Wood block. Laid by Coleman Brothers.	6	89	1914	Aug. 7, 1919.
Brighton street (city proper)	Between Leverett street and Poplar street (not including next item). Trinidad asphalt. Laid by Barber Asphalt Paving Company.	599	809	1892	
Brighton street (city proper)	Between Leverett street and Chambers street. Acme asphalt. Laid by Warren Brothers Company.	.....	523	1908	
Brighton street (city proper)	Poplar street to 7 feet north of Allen street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	233	488	1892	
Brighton street (city proper)	7 feet north of Allen street to Allen street. Bitulithic. Laid by Warren Brothers Company.	7	27	1905	
Brimmer street (city proper)	Beacon street to center of Byron street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	116	322	1895	
Brimmer street (city proper)	Center of Byron street to Chestnut street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	180	536	1906	
Brimmer street (city proper)	Chestnut street to Pinckney street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	791	2,442	1895	
Brinsley street (Dorchester)	At Washington street. Wood block. Laid by William J. Barry	5	26	1912	Oct. 21, 1918.
Broadway (city proper and South Boston).	Drawbridge over Fort Point channel. Wood block. Laid by Boston Bridge Works.	210	934	1914	
Broadway (city proper)	Albany street to 105 feet west of Albany street. Wood block. Laid by New York, New Haven & Hartford Railroad Company.	106	611	1913	

Bromfield street (city proper).....	Wood block. At Tremont street. Laid by Coleman Brothers.....	12	31	1915	June 20, 1920.
Brooks street (Brighton).....	Bridge over Boston & Albany Railroad (central roadway). Sicilian rock asphalt. Laid by Boston Asphalt Company.	.....	130	1902	
Browning avenue (Dorchester).....	Bernard street to Wales street. Bitulithic. Laid by H. J. McGuire.....	791	2,234	1914	Dec. 16, 1919.
Brunswick street (Roxbury and Dorchester).	Blue Hill avenue to Normandy street. Astec asphalt. Laid by Central Construction Company.,	638	1,849	1916	Sept. 18, 1921.
Buckingham street (city proper).....	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	4	13	1906	
Bunker Hill street (Charlestown).....	At Tufts street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	.....	161	1897	
Burke street (Roxbury).....	At Columbus avenue. Bermudez asphalt. Laid by Boston Asphalt Company.	26	86	1906	
Burroughs street (West Roxbury).....	At Centre street. Bitulithic. Laid by Warren Brothers Company.....	2	12	1913	Nov. 25, 1918.
Cabot street (Roxbury).....	180 feet west of Tremont street to Ruggles street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	1,236	3,571	1891	
Cabot street (Roxbury).....	Easterly side of Ruggles street to 7 feet east of Vernon street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	716	2,967	1892	
Cabot street (Roxbury).....	7 feet east of Vernon street to 7 feet north of Linden Park street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	477	1,376	1897	
Cabot street (Roxbury).....	7 feet north of Linden Park street to Linden Park street. Brick block. Laid by J. E. Burns & Co.	7	35	1909	
Callender street (Dorchester).....	51 feet west of Carlos street to 17 feet east of Blue Hill avenue, across Don street. Trinidad asphalt. Laid by D. M. Biggs & Co.	1,241	3,988	1915	Sept. 15, 1920.
Cambridge street (Brighton).....	224 feet west of Elko street to Washington street. Bitulithic. Laid by Warren Brothers Company.	169	1,400	1913	Oct. 24, 1918.
Cambridge street (Brighton).....	224 feet west of Elko street to Washington street. (Brows to street car rails.) Wood block. Laid by Warren Brothers Company.	.....	38	1913	Oct. 24, 1918.
Camden street (city proper).....	Both sides of Columbus avenue (crosswalks). Bermudez asphalt. Laid by Boston Asphalt Company.	18	68	1906	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Capen street (Dorchester).....	At Norfolk street. Bitulithic. Laid by James Doherty.....	8	25	1914	July 11, 1919.
Carleton street (city proper).....	At West Newton street. Bitulithic. Laid by Warren Brothers Company..	1	2	1903	
Carolina avenue (West Roxbury).....	At South street. Bitulithic. Laid by Warren Brothers Company.....	1	3	1913	Nov. 25, 1918.
Carver street (city proper).....	Boylston street to 12 feet south of Boylston street. Wood block. Laid by Clark & Gore.	12	27	1915	Oct. 9, 1920.
Carver street (city proper).....	14 feet north of Pleasant street to Pleasant street. Wood block. Laid by Coleman Brothers.	14	63	1913	Dec. 13, 1918.
Castlegate road (Dorchester).....	Normandy street to Blue Hill avenue, Roman road. Laid by Roman Road Company.	433	1,250	1915	Aug. 20, 1920.
Castle square (city proper).....	Bridge over New York, New Haven & Hartford Railroad. Brick (in street car tracks). Laid by Boston Elevated Railway Company.. Trinidad asphalt. Laid by Barber Asphalt Paving Company.....	100 {	112 1,366	1901 1899	
Cazenove street (city proper).....	Columbus avenue to 45 feet southerly; also the intersection of Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	45	134	1899	
Cazenove street (city proper).....	At Chandler street. Acme asphalt (macadam base). Laid by Warren Brothers Company..... Brick block gutters. Laid by Warren Brothers Company.....	3 {	5 2	1916 1916	Oct. 28, 1921. Oct. 28, 1921.
Cedric street (Roxbury).....	Magazine street to Langdon street. Aztec asphalt. Laid by Central Construction Company.	610	1,356	1916	Nov. 11, 1921.
Central street (city proper).....	Broad street to Kilby street. Acme asphalt. Laid by Warren Brothers Company.	308	886	1911	
Centre street (Dorchester).....	70 feet east of Washington street to Washington street. Wood block. Laid by William J. Barry.	70	255	1913	Oct. 21, 1918.
Centre street (West Roxbury).....	Green street to 18 feet west of Elliot street. Bitulithic. Laid by Warren Brothers Company..... Wood block. (Brows to street car rails.) Laid by Warren Brothers Com- pany.	1,370 {	5,260 283	1913 1913	Nov. 25, 1918. Nov. 25, 1918.

		515	3,219	1916	Nov. 27, 1921.
Centrevale park (Dorchester).....	Bournside street to Upland avenue. Astec asphalt. Laid by Central Construction Company.	515	3,219	1916	
Chambers street (city proper).....	Green street, across Poplar street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	460	1,022	1902	
Chambers street (city proper).....	Brighton street to 6 feet west of Auburn street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	152	337	1895	
Chambers street (city proper).....	6 feet west of Auburn street to 8 feet east of Charles street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	112	249	1895	
Chandler street (city proper).....	9 feet south of Castle square to 3 feet north of Berkeley street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	504	2,216	1912	Dec. 9, 1917.
Chandler street (city proper).....	3 feet north of Berkeley street to Berkeley street. Bitulithic. Laid by Warren Brothers Company.	3	13	1906	
Chandler street (city proper).....	Berkeley street to 3 feet south of Berkeley street. Bitulithic. Laid by Warren Brothers Company.	3	17	1906	
Chandler street (city proper).....	3 feet south of Berkeley street to 2 feet north of Clarendon street. Acme asphalt (macadam base). Laid by Warren Brothers Company.....	566 {	2,211	1916	Oct. 28, 1921.
	Brick block gutters. Laid by Warren Brothers Company.....		296	1916	Oct. 28, 1921.
Chandler street (city proper).....	Clarendon street to 9 feet east of Columbus avenue. Acme asphalt (macadam base). Laid by Warren Brothers Company.....	548 {	2,155	1916	Oct. 28, 1921.
	Brick block gutters. Laid by Warren Brothers Company.....		290	1916	Oct. 28, 1921.
Chandler street (city proper).....	2 feet north of Clarendon street to Clarendon street. Bitulithic. Laid by Warren Brothers Company.	2	8	1914	Sept. 25, 1919.
Chandler street (city proper).....	9 feet east of Columbus avenue to Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	44	1906	
Charles street (city proper).....	At Boylston street. Wood block. Laid by Clark & Gore.....		32	1915	Oct. 9, 1920.
Charles street (city proper).....	Southerly side of Fruit street, across Allen street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.....	709 {	763	1909	
	Standard asphalt. Laid by Central Construction Company.....		960	1916	
Charles street (Dorchester).....	East street line of Ditson street to Geneva avenue. Concrete road. Laid by city forces.	494	1,327	1916	

List of Streets Having a Smooth Pavement—Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Charter street (city proper).....	14 feet west of Hanover street, across Unity street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	306	615	1894	
Charter street (city proper).....	Hanover street to 14 feet west of Hanover street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	14	50	1896	
Chase street (Dorchester).....	East Cottage street to Willis street. Trinidad asphalt. Laid by Central Construction Company.	307	856	1915	July 15, 1920.
Chauncy street (city proper).....	Summer street to 6 feet south of Summer street. Wood block. Laid by Northern Construction Company.	6	29	1915	Aug. 16, 1920.
Chelsea Bridge South (Charlestown)...	252 feet north of south side of Scott's court to south side of draw. Brick block. Laid by Rendle & Stoddard.	194	730	1914	April 24, 1919.
Chelsea Bridge South (Charlestown)...	North side of draw to 140 feet north of north side of draw. Brick block. Laid by Rendle & Stoddard.	140	810	1914	April 24, 1919.
Chelsea Bridge North (Charlestown)...	South side draw to Chelsea line. Wood block. Laid by Boston Bridge Works, Inc.	319	1,418	1913	
Cherry street (city proper).....	7 feet west of Washington street to 8 feet east of Shawmut avenue. Trini- dad asphalt. Laid by Barber Asphalt Paving Company.	319	567	1892	
Cherry street (city proper).....	8 feet east of Shawmut avenue to Shawmut avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	8	14	1898	
Chestnut street (city proper).....	At Brimmer street. Trinidad asphalt. Laid by Central Construction Company.	1	3	1915	
Chestnut Hill avenue (Brighton).....	At Washington street. Bitulithic. Laid by Warren Brothers Company..	4	20	1913	Oct. 24, 1918.
Child street (West Roxbury).....	At South street. Bitulithic. Laid by Warren Brothers Company.....	3	11	1913	Nov. 25, 1918.
Chilmark street (Brighton).....	At Commonwealth avenue. Wood block. Laid by Clark & Gore.....	19	76	1915	Sept. 2, 1920.
Chipman street (Dorchester).....	At Norfolk street. Bitulithic. Laid by James Doherty.....	1	4	1913	July 11, 1919.

Church street (city proper).....	Boylston street to 55 feet south of Boylston street. Wood block. Laid by Clark & Gore.	55	198	1915	Oct. 9, 1920.
Church street (city proper).....	55 feet south of Boylston street to 10 feet north of Providence street. Wood block. Laid by Coleman Brothers.	100	292	1913	Sept 11, 1918.
Church street (city proper).....	7 feet south of Fayette street to 6 feet north of Malrose street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	175	521	1911	
Claremont park (city proper).....	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1906	
Clarendon street (city proper).....	11 feet north of Tremont street to 4 feet south of Warren avenue. Bitulithic. Laid by Warren Brothers Company.	320	1,422	1914	Sept. 25, 1919.
Clarendon street (city proper).....	Each side of Warren avenue. Wood block. Laid by Boston Paving Company.	8	40	1913	Dec. 13, 1918.
Clarendon street (city proper).....	4 feet north of Warren avenue to 5 feet south of Columbus avenue. Bitulithic. Laid by Warren Brothers Company.	855	3,806	1914	Sept. 25, 1919.
Clarendon street (city proper).....	5 feet south of Columbus avenue to Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	5	24	1906	
Clarendon street (city proper).....	15 feet south of Boylston street to Boylston street. Wood block. Laid by Coleman Brothers.	15	60	1914	Nov. 3, 1919.
Clarendon street (city proper).....	Boylston street to 14 feet north of Boylston street. Wood block. Laid by Coleman Brothers.	14	56	1914	Nov. 3, 1919.
Clarendon street (city proper).....	14 feet north of Boylston street to 46 feet north of Boylston street. Bitulithic. Laid by Coleman Brothers.	32	101	1914	Nov. 3, 1919.
Clarendon street (city proper).....	46 feet north of Boylston street to south street line of Commonwealth avenue. Bitulithic. Laid by Warren Brothers Company.	521	2,121	1905	
Clarendon street (city proper).....	South street line of Commonwealth avenue to north street line of Commonwealth avenue. Bitulithic (macadam base). Laid by Warren Brothers Company.	200	730	1916	Nov. 22, 1921.
Clarendon street (city proper).....	North street line of Commonwealth avenue to Beacon street. Bitulithic. Laid by Warren Brothers Company.	565	2,260	1905	
Clark street (city proper).....	18 feet east of Hanover street to 8 feet west of North street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	293	566	1892	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Clark street (city proper)	Hanover street to 18 feet east of Hanover street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	18	35	1896	
Claybourne street (Dorchester)	187 feet south of Dakota street to Park street. Bitulithic. Laid by James Doherty.	914	2,654	1915	Sept. 10, 1920.
Cleveland place (city proper)	Snow Hill street to Margaret street. Fire brick	253	355		
Cobb street (city proper)	9 feet west of Washington street to 9 feet east of Shawmut avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	329	987	1897	
Cobb street (city proper)	9 feet east of Shawmut avenue to Shawmut avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	9	27	1898	
Colonial avenue (Dorchester)	At Talbot avenue. Brick block. Laid by James Doherty	16	87	1911	
Columbia road (Dorchester)	Bridge over New York, New Haven & Hartford Railroad. Brick	163	302	1903	
Columbia road (Dorchester)	Bridge over Shoreham street. Brick	59	131	1902	
Columbia road (Dorchester)	At Hancock street. Brick block. Laid by Central Construction Company, .....	.....	280	1911	
Columbia road (Dorchester)	At Washington street. Wood block. Laid by William J. Barry	20	68	1912	Oct. 21, 1918.
Columbus avenue (city proper)	134 feet south of Ferdinand street to Boston & Albany Railroad Bridge. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	912	3,570	1904	
Columbus avenue (city proper)	Bridge over New York, New Haven & Hartford Railroad (in street car tracks). Brick. Laid by Boston Elevated Railway Company.	.....	149	1906	
Columbus avenue (city proper)	See Cazenove street.				
Columbus avenue (city proper)	Boston & Albany Railroad Bridge to northerly side of Camden street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	4,083	15,742	1906-07	
Columbus avenue (city proper and Roxbury).	Northerly side of Camden street to 67 feet north of Station street. Ber- mudes asphalt. Laid by Boston Asphalt Company.	3,846	15,579	1906-07	

Columbus square (city proper)	Columbus avenue to 9 feet east of Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	46	1906	
Columbus square (city proper)	9 feet east of Columbus avenue to 4 feet east of Pembroke street. Bitulithic. Laid by Fred S. & A. D. Gore Corporation.	235	1,774	1912	Aug. 2, 1917.
Commonwealth avenue (city proper)...	Arlington street to 4 feet west of Arlington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	4	28	1901	
Commonwealth avenue (city proper)...	4 feet west of Arlington street to Berkeley street. Bitulithic (macadam base). Laid by Warren Brothers Company.	627	4,690	1916	Nov. 22, 1921.
Commonwealth avenue (city proper)...	Berkeley street to Clarendon street. Bitulithic (macadam base). Laid by Warren Brothers Company.	580	4,340	1916	Nov. 22, 1921.
Commonwealth avenue (city proper)...	Clarendon street to Dartmouth street. Bitulithic (macadam base). Laid by Warren Brothers Company.	575	4,015	1916	Nov. 21, 1921.
Commonwealth avenue (city proper)...	Dartmouth street to Exeter street. Bitulithic (macadam base). Laid by Warren Brothers Company.	555	3,857	1916	Nov. 21, 1921.
Commonwealth avenue (city proper and Roxbury).	Exeter street to 4 feet east of Massachusetts avenue. Bitulithic (macadam base). Laid by Warren Brothers Company.	2,316	17,596	1916	Sept. 11, 1921.
Commonwealth avenue	4 feet east of Massachusetts avenue to Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	4	38	1901	
Commonwealth avenue (Roxbury)	Massachusetts avenue to 3 feet west of Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	3	29	1901	
Commonwealth avenue (Roxbury)	Charlesgate West to street line of Beacon street. Bitulithic (macadam base). Laid by Warren Brothers Company..... Brick block gutters. Laid by Warren Brothers Company.....	908 {	7,450 693 }	1916	Sept. 11, 1921.
Commonwealth avenue (Roxbury and Brighton).	Beacon street to Cottage Farm Bridge (north roadway). Wood block. Laid by Clark & Gore.	3,784	19,800	1915	Sept. 2, 1920.
Commonwealth avenue (Brighton)	Cottage Farm Bridge over Boston & Albany Railroad. Sicilian rock asphalt. Laid by Boston Asphalt Company.	140	1,556	1896	
Commonwealth avenue (Brighton)	297 feet east of Naples road to 136 feet west of Naples road. Endurite (macadam base). Laid by Warren Brothers Company.	467	1,816	1912	Sept. 14, 1917.
Concord square (city proper)	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Pav- ing Company.	9	41	1906	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Congress square (city proper).....	Congress street, across Congress square. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	201	388	1900	
Cooper street (city proper).....	North Margin street to Endicott street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	163	504	1887	
Cooper street (city proper).....	East side of Endicott street to 10 feet east of Washington Street North. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	231	680	1908	Sept. 16, 1918.
Corbet street (Dorchester).....	At Norfolk street. Bitulithic. Laid by James Doherty.....	46	184	1914	July 11, 1919.
Corey street (Charlestown).....	124 feet north of Moulton street to Moulton street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	124	289	1897	
Cornhill court (city proper).....	At Washington street. Wood block. Laid by James Doherty.....	9	8	1908	Nov. 21, 1918.
Corning street (city proper).....	Washington street to 8 feet east of Shawmut avenue. Acme asphalt. Laid by Warren Brothers Company.	329	700	1908	Nov. 25, 1918.
Cortes street (city proper).....	At Ferdinand street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	8	20	1911	
Court avenue (city proper).....	At Washington street. Brick block.....	7	8	1910	
Court street (city proper).....	Washington street to 9 feet west of Washington street. Wood block. Laid by James Doherty.	9	27	1908	Nov. 21, 1918.
Court street (city proper).....	9 feet west of Washington street to Court square west. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	296	823	1904	
Court square (city proper).....	(East road) Court street to 8 feet south of Court street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	8	14	1904	
Court square (city proper).....	(East road) 8 feet south of Court street to 20 feet north of Williams court. Acme asphalt. Laid by Warren Brothers Company.	263	800	1914	Mar. 21, 1919.
Court square (city proper).....	(East road) 20 feet north of Williams court to south of Williams court. Acme asphalt. Laid by Warren Brothers Company.	37	118	1913	

Court square (city proper)	(South road) East road, Court square, to West road, Court square. Acme asphalt. Laid by Warren Brothers Company.	74	181	1913	
Court square (city proper)	(West road) 291 feet south of Court street to 266 feet south of Court street. Acme asphalt. Laid by Warren Brothers Company.	25	65	1913	
Court square (city proper)	(West road) 266 feet south of Court street to 148 feet south of Court street. Acme asphalt. Laid by Warren Brothers Company.	118	305	1914	April 13, 1919.
Court square (city proper)	(West road) 148 feet south of Court street to 8 feet south of Court street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	140	346	1904	
Cumberland street (city proper)	At Huntington avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	4	17	1896	
Cunard street (Roxbury)	At Columbus avenue. Bermudez asphalt. Laid by Boston Asphalt Company.	16	60	1906	
Curtis street (East Boston)	Bridge over Boston & Albany Railroad. Trinidad asphalt. Laid by E. R. Taylor Company.	41	139	1906	
Custer street (West Roxbury)	At South street. Bitulithic. Laid by Warren Brothers Company.	1	3	1913	Nov. 25, 1918.
Custom House street (city proper)	At India street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	2	8	1901	
D street (South Boston)	8 feet north of West Fifth street to 2 feet north of Gold street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	134	500	1889	
Dacia street (Roxbury)	2 feet north of Woodcliff street to 3 feet south of Dove street. Bitulithic. Laid by Warren Brothers Company.	294	850	1906	
Dakota street (Dorchester)	At Washington street. Wood block. Laid by William J. Barry.	3	14	1913	Oct. 21, 1918.
Damrell street (South Boston)	Dorchester avenue to 5 feet west of Ames street. Brick block. Laid by Central Construction Company.	571	1,650	1910	
Dane street (West Roxbury)	6 feet west of Holbrook street to Orchard street. Trinidad asphalt. Laid by Charles J. Jacobs Company.	589	1,706	1915	Nov. 23, 1920.
Dartmouth street (city proper)	Each side of Warren avenue. Wood block. Laid by Boston Paving Company.	8	30	1913	Dec. 13, 1918.
Dartmouth street (city proper)	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	5	45	1906	

List of Streets Having a Smooth Pavement — Continued.

Streets.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Dartmouth street (city proper)	Bridge over New York, New Haven & Hartford Railroad, Wood block. Laid by New York, New Haven & Hartford Railroad Com- pany.	118	397	1913	
Dartmouth street (city proper)	Brick (in street car tracks) Laid by Boston Elevated Railway Company.		117	1901	
Dartmouth street (city proper)	3 feet south of Stuart street to Huntington avenue. Bitulithic. Laid by James Doherty.	389	1,776	1912	Sept. 13, 1917.
Dartmouth street (city proper) .....	.....	151	134 466 504	1914 1913 1901	Nov. 3, 1919.
Dartmouth street (city proper)	83 feet south of 1 Acme asphalt. Laid by Bitulithic. Laid by Coleman Brothers Trinidad asphalt. Laid by Barber Asphalt Paving Company Boylston street.	68	10 473 67	1912 1914 1901	Nov. 3, 1919.
Dartmouth street (city proper)	15 feet south of Boylston street to Boylston street. Wood block. Laid by Coleman Brothers.	15	125	1914	Nov. 3, 1919.
Dartmouth street (city proper)	Boylston street to 15 feet north of Boylston street. Wood block. Laid by Coleman Brothers.	15	117	1914	Nov. 3, 1919.
Dartmouth street (city proper)	15 feet north of Boylston street to north street line Public Alley Nos. 439 and 440 Bitulithic. Laid by Coleman Brothers.	129	896	1914	Nov. 3, 1919.
Dartmouth street (city proper)	North street line Public Alleys Nos. 439 and 440 to 4 feet south of New- bury street. Bitulithic. Laid by Warren Brothers.	120	933	1914	Oct. 24, 1919.
Dartmouth street (city proper)	4 feet south of Newbury street to 9 feet south of south street line of Com- monwealth avenue. Bitulithic. Laid by Warren Brothers Company.	296	2,363	1903	

Dartmouth street (city proper).....	9 feet south of south street line of Commonwealth avenue to 10 feet north of north street line of Commonwealth avenue. Bitulithic. Laid by Warren Brothers Company.	219	1,636	1916	Nov. 22, 1921.
Dartmouth street (city proper).....	10 feet north of north street line of Commonwealth avenue to Beacon street. Bitulithic. Laid by Warren Brothers Company.	554	4,329	1903	
Davenport street (Roxbury).....	At Columbus avenue. Bermudes asphalt. Laid by Boston Asphalt Company.	26	66	1906-07	
Davis street (city proper).....	11 feet east of Washington street to 7 feet west of Harrison avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	305	610	1892	
Davis street (city proper).....	7 feet west of Harrison avenue to Harrison avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	7	14	1901	
Day street (Roxbury).....	At Heath street. Brick block. Laid by Field, Barker & Underwood, Inc..	5	36	1910	
Dearborn place (Roxbury).....	At Dearborn street. Acme asphalt. Laid by Warren Brothers Company,	5	8	1916	1922.
Dearborn street (Roxbury).....	Albany street to 56 feet south of Albany street. Bitulithic. Laid by Warren Brothers Company.	56	220	1907	Aug. 3, 1917.
Dearborn street (Roxbury).....	56 feet south of Albany street to 27 feet north of Dudley street. Acme asphalt. Laid by Warren Brothers Company.....	497	998	1916	1922.
	Brick block gutters. Laid by Warren Brothers Company.....		169	1916	1922.
Dearborn street (Roxbury).....	27 feet north of Dudley street to Dudley street. Brick block. Laid by James Doherty.	27	176	1910	
Decatur street (city proper).....	2 feet east of Washington street to 8 feet west of Harrison avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	355	751	1892	
Decatur street (city proper).....	8 feet west of Harrison avenue to Harrison avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	8	16	1905	
Deerfield street (Roxbury).....	Commonwealth avenue to 18 feet north of Commonwealth avenue. Wood block. Laid by Clark & Gore.	18	94	1915	Sept. 2, 1920.
Derne street (city proper).....	Temple street to 5 feet east of Hancock street. Brck block. Laid by J. E. Burns & Co.	205	610	1909	
Derne street (city proper).....	5 feet east of Hancock street to Hancock street. Bitulithic. Laid by Warren Brothers Company.	5	30	1902	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Devonshire street (city proper)	Dock square to 75 feet south of Dock square (west side). Wood block. Laid by Bernard E. Grant.	.....	44	1916	Dec. 14, 1921.
Devonshire street (city proper)	75 feet south of Dock square to State street (each side of tracks). Wood block. Laid by Bernard E. Grant.	230	517	1916	Dec. 14, 1921.
Devonshire street (city proper)	State street to 7 feet south of Water street. Wood block. Laid by Bernard E. Grant.	392	1,281	1916	Dec. 14, 1921.
Devonshire street (city proper)	7 feet south of Water street to 7 feet north of Milk street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	248	743	1909	
Devonshire street (city proper)	18 feet south of Milk street to 8 feet north of Franklin street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	409	1,378	1905	
Devonshire street (city proper)	9 feet north of Summer street to Summer street. Wood block. Laid by Northern Construction Company.	9	51	1915	Aug. 16, 1920.
DeWolf street (Dorchester)	At Hancock street. Brick block. Laid by Fred S. & A. D. Gore Cor- poration.	8	24	1911	
Dillaway street (city proper)	Dore street to Hollis street. Bitulithic. Laid by James Doherty	259	452	1914	Aug. 17, 1919.
Dillaway street (city proper)	2 feet north of Hollis street to Hollis street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	2	4	1891	
Dillon street (city proper)	Lenox street to Sawyer street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	204	295	1902	
Doane street (city proper)	Broad street to 135 feet west of Broad street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	135	270	1910	
Doane street (city proper)	135 feet west of Broad street to Kilby street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	174	350	1881	
Don street (Dorchester)	At Callender street. Trinidad asphalt. Laid by D. M. Biggs & Co.	1	3	1915	Sept. 15, 1920.

Dorchester street (South Boston).....	West Broadway to 129 feet north of West Eighth street, minus intersections at West Fourth and West Fifth streets, and (west side) from 129 feet north of West Eighth street to West Eighth street. Bitulithic. Laid by Warren Brothers Company.	1,312	5,775	1905	
Dorchester street (South Boston).....	94 feet north of Vinton street to Vinton street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	.....	190	1904	
Dorchester street (South Boston).....	8 feet north of Rogers street to 154 feet north of Dorchester avenue. Bitulithic. Laid by Warren Brothers Company.	152	613	1914	Nov. 11, 1919.
Dorchester avenue (South Boston).....	Ralston street to 140 feet south of Ralston street. Wood block. Laid by Coleman Brothers.	140	402	1913	Sept. 10, 1918.
Dore street (city proper).....	9 feet west of Washington street to 8 feet east of Tremont street. Bitulithic. Laid by Warren Brothers Company.	437	775	1914	Nov. 7, 1919.
Doris street (Dorchester).....	At Erie avenue. Astec asphalt. Laid by Central Construction Company,	7	21	1916	Nov. 17, 1921.
Dove street (Roxbury).....	At Dacia street. Bitulithic. Laid by Warren Brothers Company.....	1	3	1906	
Downing street (Roxbury).....	Whittier street to Vernon street. Brick block. Laid by J. E. Burns & Co.,	323	750	1909	
Dudley street (Roxbury).....	70 feet west of Guild row to 24 feet east of Harrison avenue. Wood block. Laid by James Doherty.	841	4,134	1912	Sept. 21, 1917.
Dudley street (Roxbury).....	4 feet east of Harrison avenue to 4 feet east of Magazine street. Brick block. Laid by James Doherty.	2,686	10,755	1910	
Dudley street (Roxbury).....	Dunmore street to Magazine street (east side). Sicilian rock asphalt. Laid by Boston Asphalt Company.	.....	350	1902	
Dundee street (Roxbury).....	At Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	4	13	1901	
Dunlap street (Dorchester).....	Washington street to 11 feet west of Washington street. Wood block. Laid by William J. Barry.	11	25	1913	Oct. 21, 1918.
Dunlap street (Dorchester).....	11 feet west of Washington street to 6 feet east of Whitfield street. Trinidad asphalt. Laid by William J. Rafferty & Co.	787	1,759	1915	Dec. 28, 1920.
Dunmore street (Roxbury).....	Dudley street to 57 feet east of Dudley street. Brick block. Laid by James Doherty.	57	135	1910	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Dunster road (West Roxbury)	Each side of Dane street. Trinidad asphalt. Laid by Charles J. Jacobs Company.	14	49	1915	Nov. 23, 1920.
Dwight street (city proper)	Shawmut avenue to Tremont street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	696	2,017	1893	
E street (South Boston)	5 feet south of Bolton street to West Third street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	106	392	1892	
E street (South Boston)	West Broadway, across West Fourth street. Bitulithic. Laid by Warren Brothers Company.	324	1,188	1903	
E street (South Boston)	West Seventh street to West Eighth street. Trinidad asphalt. Laid by Barber Asphalt Paving Company..	311	500	1904	
East Broadway (South Boston)	In front of Lincoln School. Sicilian rock asphalt. Laid by Boston Asphalt Company.	180	644	1897	
East Concord street (city proper)	At Albany street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	12	45	1897	
East Fourth street (South Boston)	Dorchester street to 4 feet east of Dorchester street. Bitulithic. Laid by Warren Brothers Company.	4	17	1905	
East Fourth street (South Boston)	P street to 96 feet west of Farragut road. Wood block. Laid by James Doherty.	426	1,450	1911	
East Fourth street (South Boston)	96 feet west of Farragut road to Farragut road. Brick block. Laid by James Doherty.	96	329	1911	
Edinboro' street (city proper)	Essex street to Beach street. Acme asphalt. Laid by Warren Brothers Company.	404	916	1912	Dec. 4, 1917.
Edson street (Dorchester)	At Norfolk street. Bitulithic. Laid by James Doherty	9	43	1914	July 11, 1919.
Elgin street (West Roxbury)	Centre street to West Roxbury Branch, Boston & Providence Division, New York, New Haven & Hartford Railroad. Trinidad asphalt. Laid by Charles J. Jacobs Company.	596	1,722	1915	Dec. 2, 1920.

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Exeter place (city proper).....	8 feet west of Chauncey street to 7 feet east of Harrison avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	155	353	1897	
Exeter street (city proper).....	At Huntington avenue. Bitulithic. Laid by Fred S. & A. D. Gore Corporation..... Bitulithic. Laid by Warren Brothers Company.....	..... ..... .....	14 5	1912 1909	Aug. 17, 1917.
Exeter street (city proper).....	Huntington avenue to 16 feet south of Boylston street. Bitulithic. Laid by Boston Elevated Railway Company.	541	2,126	1914	Nov., 1919.
Exeter street (city proper).....	16 feet south of Boylston street to Boylston street. Bitulithic. Laid by Coleman Brothers.	16	85	1914	Nov. 3, 1919.
Exeter street (city proper).....	Boylston street to 15 feet north of Boylston street. Bitulithic. Laid by Coleman Brothers.	15	60	1914	Nov. 3, 1919.
Exeter street (city proper).....	South street line of Commonwealth avenue to north street line of Com- monwealth avenue. Bitulithic (macadam base). Laid by Warren Brothers Company.	220	730	1916	Nov. 22, 1921.
Exeter street (city proper).....	South side of Marlborough street, Bitulithic. Laid by James Doherty...	3	13	1914	Aug. 3, 1919.
Exeter street (city proper).....	North side of Marlborough street. Bitulithic. Laid by James Doherty...	2	9	1914	Aug. 3, 1919.
Exeter street (city proper).....	At Beacon street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	2	9	1909	
Fabin street (city proper).....	Newland street to Ivanhoe street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	415	606	1895	
Fabyan street (Dorchester).....	15 feet east of Blue Hill avenue to 6 feet west of Harvard street. Trinidad asphalt. Laid by Martino DeMatteo.	691	1,996	1915	May 29, 1920.
Fairfield street (city proper).....	At Boylston street. Bitulithic. Laid by Warren Brothers Company.....	5	23	1913	Aug. 13, 1918.
Fairfield street (city proper).....	Each side at Marlborough street. Bitulithic. Laid by James Doherty.....	6	26	1914	Aug. 3, 1919.

Fairfield street (city proper).....	At Beacon street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	3	12	1909	
Falmouth street (Roxbury).....	6 feet north of Norway street to 6 feet north of Massachusetts avenue. Wood block. Laid by James Doherty.	634	2,433	1909	
Falmouth street (Roxbury).....	6 feet north of Massachusetts avenue to Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	6	25	1901	
Farrington avenue (Brighton).....	At Harvard avenue. Bitulithic. Laid by Coleman Brothers.....	2	6	1914	Aug. 7, 1919.
Fay street (city proper).....	5 feet west of Harrison avenue to 8 feet south of Dover street (cobble base). Sicilian rock asphalt. Laid by Boston Asphalt Company.	305	532	1894	
Fayette street (city proper).....	Pleasant street to 7 feet west of Pleasant street. Wood block. Laid by Coleman Brothers.	7	16	1913	Dec. 13, 1918.
Fayette street (city proper).....	7 feet west of Pleasant street to Ferdinand street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	839	1,914	1911	
Fenelon street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	30	1912	Oct. 21, 1918.
Ferdinand street (city proper).....	See Castle square.				
Ferdinand street (city proper).....	16 feet north of Boston & Albany Railroad Bridge to 50 feet north of Isabella street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	376	1,069	1911	
Fernboro street (Dorchester).....	Lawrence avenue to Intervale street. Trinidad asphalt. Laid by James Doherty.	487	1,412	1916	June 28, 1921.
Florence street (city proper).....	Washington street to Harrison avenue. Bitulithic. Laid by Warren Brothers Company.	335	670	1906	
Franklin street (city proper).....	At India street. Sicilian rock asphalt. Laid by Boston Asphalt Company,	1	3	1901	
G street (South Boston).....	110 feet north of East Sixth street to 178 feet north of East Seventh street. Bitulithic. Laid by Warren Brothers Company.	230	828	1905	
Gainsborough street (Roxbury).....	10 feet east of Huntington avenue to Providence Division of New York, New Haven & Hartford Railroad. Bitulithic. Laid by Warren Brothers Company.	539	2,037	1903	
Garden Court street (city proper).....	North square to 7 feet south of Fleet street. Bitulithic. Laid by Warren Brothers Company.	226	365	1906	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Gardner street (Brighton).....	At Harvard avenue. Bitulithic. Laid by Coleman Brothers.....	2	6	1914	Aug. 7, 1919.
Garrison street (city proper).....	At Huntington avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	4	16	1896	
Gates street (South Boston).....	At Dorchester street. Bitulithic. Laid by Warren Brothers Company.....	5	16	1905	
Gay street (Roxbury).....	At Linden Park street. Brick block. Laid by J. E. Burns & Co.....	8	19	1909	
Gaylord street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	3	9	1913	Oct. 21, 1918.
Genesee street (city proper).....	2 feet east of Harrison avenue to 2 feet west of Albany street. Seyssel rock asphalt. Laid by Jones & Meehan.	501	1,112	1899	
Geneva avenue (Dorchester).....	185 feet west of Beechwood street to 10 feet east of Bowdoin street. Brick block. Laid by Central Construction Company.	1,329	5,123	1911	
Glenarm street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	23	1912	Oct. 21, 1918.
Glendale street (Dorchester).....	At Hancock street. Brick block. Laid by Central Construction Company.	10	23	1911	
Glendower road (West Roxbury).....	Kittredge street to Poplar street. Trinidad asphalt. Laid by Charles J. Jacobs Company.	1,926	5,578	1915-16	July 14, 1921.
Glenville avenue (Brighton).....	At Harvard avenue. Bitulithic. Laid by Coleman Brothers.....	2	6	1914	Aug. 7, 1919.
Gloucester street (city proper).....	At Boylston street. Bitulithic. Laid by Warren Brothers Company.....	5	23	1913	Aug. 13, 1918.
Gloucester street (city proper).....	Each side of Newbury street. Wood block. Laid by United States Wood Preserving Company.	7	31	1901	
Gloucester street (city proper).....	Each side of Marlborough street. Bitulithic. Laid by James Doherty.....	6	26	1914	Aug. 3, 1919.
Gloucester street (city proper).....	At Beacon street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	3	13	1909	
Gold street (South Boston).....	B street to C street. Sicilian rock asphalt. Laid by Jones & Meehan.....	512	730	1901	

Gold street (South Boston).....	C street to D street. Sicilian rock asphalt. Laid by Jones & Meehan.....	513	741	1901	
Gold street (South Boston).....	At Dorchester street. Bitulithic. Laid by Warren Brothers Company.....	4	6	1905	
Grace street (Dorchester).....	Walton street to Roslin street. Bitulithic. Laid by D. M. Biggs & Co.....	303	873	1915	Aug. 19, 1920.
Granby street (Roxbury).....	At Commonwealth avenue. Wood block. Laid by Clark & Gore.....	19	88	1915	Sept. 2, 1920.
Gray street (city proper).....	At Clarendon street. Bitulithic. Laid by Warren Brothers Company.....	3	7	1914	Sept. 25, 1919.
Greenough avenue (West Roxbury).....	At Centre street. Bitulithic. Laid by Warren Brothers Company.....	2	18	1913	Nov. 25, 1918.
Greenville street (Roxbury).....	At Dudley street. Brick block. Laid by James Doherty.....	8	20	1910	
Greenwich park (city proper).....	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1906	
Groton street (city proper).....	Washington street to Shawmut avenue (block base). Trinidad asphalt. Laid by Barber Asphalt Paving Company.	316	528	1892	
Guild row (Roxbury).....	42 feet north of Dudley street to Dudley street. Wood block. Laid by James Doherty.	42	257	1912	Sept. 21, 1917.
Half Moon street (Dorchester).....	At Lingard street. Bitulithic. Laid by James Doherty.....	1	8	1915	Sept. 17, 1920.
Halleck street (Roxbury).....	At Station street. Bitulithic. Laid by John F. Beatty.....	1	3	1914	Dec. 18, 1919.
Hamburg street (city proper).....	Mystic street to Harrison avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	375	585	1896	
Hamlet street (Dorchester).....	Belden street to Columbia road. Trinidad asphalt. Laid by Central Construction Company.	409	909	1915	July 22, 1920.
Hammond street (city proper).....	Shawmut avenue to Tremont street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	1,115	4,214	1912	Nov. 12, 1917.
Hampshire street (Roxbury).....	Ruggles street to Whittier street. Brick block. Laid by J. E. Burns & Co.	362	1,050	1909	
Hampshire street (Roxbury).....	Whittier street to Vernon street. Brick block. Laid by J. E. Burns & Co.,	364	1,055	1909	
Hampshire street (Roxbury).....	Vernon street to Linden Park street. Brick block. Laid by J. E. Burns & Co.,	645	1,864	1909	
Hancock street (city proper).....	Mt. Vernon street to 4 feet north of Mt. Vernon street. Brick.....	4	14	1901	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Hancock street (city proper).....	4 feet north of Mt. Vernon street to 7 feet south of Cambridge street. Bitulithic. Laid by Warren Brothers Company.	928	2,383	1902	
Hancock street (Dorchester).....	At Columbia road (west road). Bitulithic (macadam base). Laid by Warren Brothers Company.	.....	281	1915	May 26, 1920.
Hancock street (Dorchester).....	Columbia road to 345 feet northwest of DeWolf street. Brick block. Laid by Central Construction Company.	2,221	9,672	1910-11	
Hancock street (Dorchester).....	At Bowdoin street. Brick block. Laid by Central Construction Com- pany.	.....	205	1913	Sept. 12, 1918.
Hancock street (Dorchester).....	345 feet northwest of DeWolf street to Dorchester avenue. Brick block. Laid by Fred S. & A. D. Gore Corporation.	1,416	5,684	1911	
Hanover avenue (city proper).....	Hanover street to 7 feet west of North street. Trinidad asphalt (cobble base). Laid by Barber Asphalt Paving Company.	300	256	1892	
Hanover street (city proper).....	(West side) Tileston street, across Charter street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	315	425	1907	July 22, 1917.
Hanover street (city proper).....	(East side) Tileston street, across Charter street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	.....	323	1896	
Harris avenue (West Roxbury).....	At Centre street. Bitulithic. Laid by Warren Brothers Company.....	2	5	1913	Nov. 25, 1918.
Harris street (city proper).....	Hanover street to 10 feet east of Hanover street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	10	11	1896	
Harris street (city proper).....	10 feet east of Hanover street to 9 feet west of North street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	281	352	1904	
Harrison avenue (city proper).....	22 feet south of Kneeland street to 22 feet north of Harvard street. Trini- dad asphalt. Laid by Barber Asphalt Paving Company.	249	885	1899	
Harrison avenue (city proper).....	Bridge over Boston & Albany Railroad. Wood block. Laid by Central Construction Company. Maintained by railroad company.	55	179	1915	

Harrison avenue (city proper).....	Asylum street, across Davis street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	158	309	1901	
Harrison avenue (city proper).....	Northerly side of Denatur street, across Gloucester place. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	143	270	1905	
Harrison avenue (city proper).....	Brow to track at Union Park street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	.....	12	1913	June 28, 1913.
Harrison avenue (city proper).....	At Union Park street. Acme asphalt. Laid by Fred S. & A. D. Gore Corporation.	.....	140	1913	June 28, 1913.
Harrison avenue (city proper).....	North side of Union Park street, across Malden street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	248	433	1902-03	
Harrison avenue (city proper).....	Malden street to East Dedham street. Acme asphalt. Laid by Warren Brothers Company.	382	918	1900	
Harrison avenue (city proper).....	East Newton street to 8 feet north of East Springfield street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	922 {	948 1,716	1888 1895	
Harrison avenue (city proper).....	7 feet south of East Springfield street to 104 feet south of East Springfield street (east side). Trinidad asphalt. Laid by Barber Asphalt Paving Company.	.....	140	1888	
Harrison avenue (city proper).....	8 feet north of East Springfield street to Northampton street, not including 7 feet south of East Springfield street to 104 feet south of East Springfield street (east side). Bitulithic. Laid by Warren Brothers Company.	508	1,174	1905	
Harrison avenue (city proper).....	South side of Northampton street to north side of East Lenox street. Shellian rock asphalt. Laid by Boston Asphalt Company.	427	1,090	1903	
Harrison avenue (Roxbury).....	At Dudley street. Wood block. Laid by James Doherty.....	16	72	1912	Sept. 21, 1917.
Harvard avenue (Brighton).....	10 feet north of Commonwealth avenue. Coleman Brothers. Laid by Coleman } 1 tracks and brows to tracks. Laid by Coleman }	884 {	3,211 600	1914 1914	Aug. 7, 1919. Aug. 7, 1919.
Harvard avenue (Brighton).....	19 feet south of Cambridge street to Brighton avenue. Bitulithic. Laid by Coleman Brothers. Laid by Coleman } Wood block (between tracks and brows to tracks). Laid by Coleman }	843 {	2,504 537	1914 1914	Aug. 7, 1919. Aug. 7, 1919.

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Harvard avenue (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	16	90	1912	Oct. 21, 1918.
Harvard Bridge (city proper).....	Boston side of draw to 270 feet west of southerly abutment. Wood block. Laid by Fred S. & A. D. Gore Corporation.	708	3,994	1913	Jan. 27, 1918.
Harvard Bridge (city proper).....	270 feet west of southerly abutment to southerly abutment. Wood block. Laid by Fred S. & A. D. Gore Corporation.	270	1,080	1912-13	Jan. 27, 1918.
Harvard Bridge (city proper).....	Boston side of draw to south abutment. Brick block (each side of rails). Laid by Fred S. & A. D. Gore Corporation.	.....	467	1912-13	Jan. 27, 1918.
Harvard street (city proper).....	Washington street to Harrison avenue. Wood block. Laid by J. H. McCarthy.	408	861	1910	
Harvard street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	76	1912	Oct. 21, 1918.
Harwood street (Dorchester).....	Willowwood street to Lucerne street. Trinidad asphalt. Laid by James Doherty.	723	2,112	1916	Dec. 3, 1921.
Haskins street (Roxbury).....	Ruggles street to 6 feet south of Ruggles street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	6	14	1907	Aug. 23, 1917.
Haskins street (Roxbury).....	6 feet north of Vernon street to Vernon street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	6	13	1907	Nov. 30, 1917.
Haviland street (Roxbury).....	At Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	5	14	1901	
Hawes street (city proper).....	9 feet east of Congress street to Kilby street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	249	246	1904	
Hawley street (city proper).....	At Summer street. Wood block. Laid by Northern Construction Company.	8	25	1915	Aug. 16, 1920.
Hayward place (city proper).....	Washington street to 9 feet east of Washington street. Wood block. Laid by United States Wood Preserving Company.	9	20	1906	

Hayward place (city proper).....	9 feet east of Washington street to Harrison avenue. Acme asphalt. Laid by Boston Paving Company.	251	505	1913	Aug. 19, 1918.
Heath street (Roxbury)	Parker street to 17 feet east of Talbot avenue. Brick block. Laid by Field, Inc.	2,045	12,027	1910	
Helen street (Dorchester) ..	7 feet west of Bernard street to 17 feet east of Talbot avenue. Trinidad asphalt. Laid by James Doherty.	231	1,003	1915	Nov. 2, 1920.
Helen street (Dorchester).....	15 feet east of Talbot avenue to Talbot avenue. Brick block. Laid by James Doherty.	15	93	1911	
Hemenway street (Roxbury).....	At Boylston street. Bitulithic. Laid by Warren Brothers Company.....	5	25	1905	
Henehaw street (Brighton).....	At Cambridge street. Bitulithic. Laid by Warren Brothers Company....	25	274	1913	Oct. 24, 1918.
Hereford street (Roxbury) ..	Each side of Newbury street. Wood block. Laid by Patrick McGovern..	7	31	1903	
Hereford street (city proper).....	Each side of Marlborough street. Bitulithic. Laid by James Doherty...	6	28	1914	Aug. 3, 1919.
Hereford street (city proper):.....	At Beacon street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	3	12	1907	Sept. 16, 1917.
High street (Dorchester).....	At Hancock street. Brick block. Laid by Fred S. & A. D. Gore Corporation.	8	29	1911	
Hillcrest street (West Roxbury).....	At Elgin street. Trinidad asphalt. Laid by Charles J. Jacobs Company,	7	23	1915	Dec. 2, 1920.
Himedale street (Roxbury) ..	Commonwealth avenue to Cunningham street. Brick block. Laid by Fred S. & A. D. Gore Corporation.	336	1,232	1911	
Hollis street (city proper).....	10 feet east of Tremont street toward Washington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	251	473	1891	
Holyoke street (city proper).....	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1908-07	
Hopestill street (Dorchester).....	3 feet south of Aspinwall road to 3 feet south of Aspinwall road. Brick block.	5	14	1907	
Hopestill street (Dorchester).....	10 feet south of Aspinwall road to 6 feet north of Southern avenue. Trinidad asphalt. Laid by Charles J. Jacobs Company.	302	872	1915	May 20, 1920.

List of Streets Having a Smooth Pavement — Continued.

Streets.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Howe street (Dorchester)	At Hancock street. Brick block. Laid by Central Construction Company.	10	29	1910	
Howland street (Roxbury)	231 feet west of Humboldt avenue to 6 feet east of Harold street. Bitu- lithic. Laid by John F. Beatty.	422	1,219	1915	July 19, 1920.
Hubert street (Roxbury)	Shawmut avenue to Westminster street. Astec asphalt. Laid by Central Construction Company.	447	1,292	1916	Aug. 13, 1921.
Hudson street (city proper)	7 feet south of Beach street to 7 feet north of Kneeland street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	304	811	1891	
Hudson street (city proper)	7 feet south of Kneeland street to 6 feet north of Harvard street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	361	963	1891	
Hudson street (city proper)	6 feet south of Harvard street to 90 feet north of Curve street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	817	2,179	1891	
Huntington avenue (city proper)	At Boylston Bitulithic. } Trinidad asp. } Paving Company.	.....	444 302	1914 1901	Nov. 3, 1919.
Huntington avenue (city proper)	Boylston street to 159 feet south of Boylston street (west side). Wood block. Laid by Coleman Brothers.	159	786	1914	Nov. 3, 1919.
Huntington avenue (city proper)	At St. James avenue. Bitulithic. Laid by James Doherty.	100	576	1912	Sept. 13, 1917.
Huntington avenue (city proper)	At St. James avenue and Dartmouth street. Bitulithic. Laid by Boston Elevated Railway Company.	40	325	1914	Nov., 1919.
Huntington avenue (city proper)	At Dartmouth street. Acme asphalt. Laid by Warren Brothers Company, .....	.....	180	1912	
Huntington avenue (city proper)	159 feet south of Boylston street to 9 feet south of Dartmouth street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	325	2,570 177	1901 1914	Nov., 1919.
Huntington avenue (city proper)	9 feet south of Dartmouth street to 84 feet north of bridge over Boston & Albany Railroad. Bitulithic. Laid by Warren Brothers Company.	600	3,350	1906	

Huntington avenue (city proper).....	84 feet north of bridge over Boston & Albany Railroad to bridge over Boston & Albany Railroad. Bitulithic. Laid by Warren Brothers Company.	84	490	1909	
Huntington avenue (city proper).....	At Exeter street. Bitulithic. Laid by Boston Elevated Railway Company.	.....	101	1914	Nov., - 1919.
Huntington avenue (city proper).....	Bridge over Boston & Albany Railroad. Wood block. Laid by Central Construction Company.	92	633	1916	Dec. 11, 1921.
Huntington avenue (city proper)	Bridge over Boston & Albany Railroad to 70 feet south of bridge over Boston & Albany Railroad. Trinidad asphalt. Laid by Simpson Brothers Corporation.	70	434	1909	
Huntington avenue (city proper)	70 feet south of bridge over Boston & Albany Railroad to north side of Cumberland street, minus 685 feet north of West Newton street to 38 feet north of West Newton street (west roadway). Sicilian rock asphalt. Laid by Boston Asphalt Company.	1,520	6,635	1896	
Huntington avenue (city proper)	685 feet north of West Newton street to 38 feet north of West Newton street (west roadway). Trinidad asphalt. Laid by Barber Asphalt Paving Company.	.....	1,831	1907	Oct. 24, 1917.
Huntington avenue (Roxbury)	North side of Cumberland street to 10 feet north of Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	737	4,083	1896	
Huntington avenue (Roxbury)	9 feet south of Massachusetts avenue to 8 feet north of Gainsborough street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	570	3,155	1896	
I street (South Boston)	East Broadway to East Fourth street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	252	952	1910	
Idlewild street (Brighton)	17 feet south of Commonwealth Avenue to 7 feet north of Brainerd road. Bitulithic. Laid by Charles J. Jacobs Company.	362	1,046	1915	Sept. 3, 1920.
India street (city proper)	Milk street to India street (formerly India square). Sicilian rock asphalt. Laid by Boston Asphalt Company.	549	2,064	1901	
Intervale street (Dorchester)	Each side of Normandy street. Astec asphalt. Laid by Central Construction Company.	2	7	1916	Oct. 13, 1921.
Ipswich street (Roxbury)	Bridge over waterway. Sicilian rock asphalt. Laid by Boston Asphalt Company.	61	267	1898	
Irvington street (city proper)	At Huntington avenue. Trinidad asphalt. Laid by Simpson Brothers Corporation.	5	20	1909	

List of Streets Having a Smooth Pavement—Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Isabella street (city proper).....	At Ferdinand street. Wood block. Laid by Fred S. & A. D. Gore Cor- poration.	8	20	1911	
Jerome street (Dorchester).....	At Hancock street. Brick block. Laid by Central Construction Company,	10	42	1911	
Joiner street (Charlestown).....	Park street to Chelsea street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	161	413	1906	
Jones avenue (Dorchester).....	Mascot street to Ballou avenue. Trinidad asphalt. Laid by James Doherty.	984	2,855	1916	June 13, 1921.
K street (South Boston).....	East Fourth street to East Sixth street. American rock asphalt. Laid by Jones & Meehan.	600	2,113	1906	
K street (South Boston).....	East Sixth street to East Eighth street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	566	1,083	1896	
Kennard avenue (city proper).....	At Poplar street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	1	3	1887	
Kennard avenue (city proper).....	At Allen street. Bitulithic. Laid by Warren Brothers Company.....	2	4	1905	
Kenney street (Roxbury).....	Day street to 503 feet west of Day street. Trinidad asphalt. Laid by James Doherty.	503	1,113	1915	Nov. 10, 1920.
Kent street (Roxbury).....	Roxbury street to Vernon street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	440	933	1911	
Kenwood street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	30	1913	Oct. 21, 1918.
Kerwin street (Dorchester).....	At Talbot avenue (crosswalk). Brick block. Laid by James Doherty..... Brick block. Laid by James Doherty.....	9 5	51 37	1907 1911	
Kilby street (city proper).....	Milk street to 6 feet north of Milk street. Wood block. Laid by James Doherty.	6	70	1910	

Kilby street (city proper).....	6 feet north of Milk street to 56 feet south of Water street (west side). Trinidad asphalt. Laid by Barber Asphalt Paving Company.	.....	1,292	1898	
Kilby street (city proper).....	6 feet north of Milk street, across Central street (east side). American rock asphalt. Laid by Jones & Meehan.	304	1,520	1908	Aug. 31, 1918.
Kilby street (city proper).....	Central street to State street. Trinidad asphalt. Laid by Central Con- struction Company.	240	672	1915	
Kilby street (city proper).....	At Liberty square. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	.....	505	1881	
Kingston street (city proper).....	Summer street to 6 feet south of Summer street. Wood block. Laid by Northern Construction Company.	6	18	1915	Aug. 16, 1920.
Kingston street (city proper).....	Essex street to Beach street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	479	1,828	1910	
Kirkland street (city proper).....	10 feet south of Pleasant street toward Corning street. Acme asphalt. Laid by Warren Brothers Company.	361	519	1909	
Kittredge street (West Roxbury).....	Cornell street to Beech street. Bitulithic. Laid by Charles J. Jacobs Com- pany.	547	1,588	1916	July 6, 1921.
Laconia street (city proper).....	Washington street to Harrison avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	314	687	1896	
La Grange street (city proper).....	Tremont street, toward Washington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	181	355	1897	
Lamont street (Roxbury).....	At Linden Park and Vernon streets. Brick block. Laid by J. E. Burns & Co.	14	25	1909	
Lawn street (Roxbury).....	At Heath street. Brick block. Laid by Field, Barker & Underwood, Inc.,	8	32	1910	
Lawn street (Roxbury).....	At Heath street. Brick block. Laid by Field, Barker & Underwood, Inc.,	8	23	1910	
Lawrence street (city proper).....	At Berkeley street. Bitulithic. Laid by Warren Brothers Company.....	4	9	1906	
Lawrence street (city proper).....	Each side of Clarendon street. Bitulithic. Laid by Warren Brothers Company.	5	14	1914	Sept. 25, 1919.
Lawrence street (Charlestown).....	East side of Lawrence avenue, across Miller street. Sicilian rock asphalt. Laid by Jones & Meehan.	385	1,014	1901	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Leslie street (Dorchester).....	Dix street to Centre street. Trinidad asphalt. Laid by D. M. Biggs & Co.,	374	1,090	1915	Oct. 16, 1920.
Lewis street (city proper)	At Moon street. Bitulithic. Laid by Warren Brothers Company.....	1	2	1906	
Lincoln place (city proper).....	Worcester street to West Springfield street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	203	298	1897	
Linden Park street (Roxbury).....	12 feet east side of Cabot street to 4 feet east of Elmwood street. Brick block. Laid by J. E. Burns & Co.	1,015	3,242	1909	
Lingard street (Dorchester).....	Magnolia street to Hartford street. Bitulithic. Laid by James Doherty...	594	1,791	1915	Sept. 17, 1920.
Long avenue (Brighton).....	Commonwealth avenue to Allston street. Trinidad asphalt. Laid by Central Construction Company.	765	2,785	1914	Dec. 14, 1919.
Longwood avenue (Roxbury).....	51 feet north of Huntington avenue to 9 feet south of Brookline avenue. Brick block. Laid by Field, Barker & Underwood, Inc.	2,078	7,850	1910	
Lorette street (West Roxbury).....	Centre street to 18 feet east of Hillcrest street. Acme asphalt. Laid by Central Construction Company.	486	1,404	1916	1922.
Lovering place (city proper).....	Washington street to Harrison avenue. Acme asphalt. Laid by James Doherty.	306	525	1913	June 16, 1918.
Lucas street (city proper).....	Middlesex street to 2 feet north of Shawmut avenue. Asphalt blocks.....	98	81	1902	
Lucas street (city proper).....	2 feet north of Shawmut avenue to Shawmut avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	2	2	1898	
Lucas street (city proper).....	Shawmut avenue to 2 feet north of Shawmut avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	2	2	1898	
Lucas street (city proper).....	10 feet south of Shawmut avenue to 9 feet north of Washington street. Scoria block. Laid by Paving Service.	322	254	1915	
Lyndehurst street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	30	1913	Oct. 21, 1918.

Lynn street (city proper)	Cooper street to Thacher street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	294	457	1906	
Mackin street (Brighton)	Western avenue to Waverly street. Bitulithic. Laid by A. H. Archer	292	653	1915	Nov. 26, 1920.
Magazine street (Roxbury)	At Dudley street. Brick block. Laid by James Doherty	10	30	1910	
Main street (Charlestown)	Boston & Maine Railroad to Somerville line. Hassam pavement. Laid by Simpson Brothers Corporation.	139	672	1906	
Maitland street (Roxbury)	Beacon street to Boston & Albany Railroad. Brick block. Laid by Fred S. & A. D. Gore Corporation.	186	537	1912	Dec. 17, 1917.
Malcolm street (city proper)	Pinckney street to Mt. Vernon street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	312	244	1912	Sept. 6, 1917.
Malcolm street (city proper)	54 feet south of Mt. Vernon street to 8 feet north of Chestnut street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	200	150	1892	
Malden street (city proper)	Washington street to Harrison avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	519	1,501	1902	
Mall street (Roxbury)	At Dearborn street. Acme asphalt. Laid by Warren Brothers Company	10 {	34 5	1916 1916	1922. 1922.
	Brick block gutters. Laid by Warren Brothers Company				
Market street (Brighton)	At Washington street. Bitulithic. Laid by Warren Brothers Company	3 {	41 1	1913 1913	Oct. 24, 1918. Oct. 24, 1918.
	Wood block (brows to street car rails). Laid by Warren Brothers Company.				
Marlborough street (city proper)	Arlington street to 15 feet west of Arlington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	15	60	1901	
Marlborough street (city proper)	15 feet west of Arlington street to 10 feet east of Clarendon street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	1,226	4,904	1901	
Marlborough street (city proper)	10 feet east of Clarendon street to Clarendon street. Bitulithic. Laid by Warren Brothers Company.	10	40	1905	
Marlborough street (city proper)	Clarendon street to Dartmouth street. Bitulithic (macadam base). Laid by James Doherty.	575	2,300	1914	Aug. 3, 1919.

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Marlborough street (city proper).....	Dartmouth street, across Exeter street. Bitulithic (macadam base). Laid by James Doherty.	591	2,359	1914	Aug. 3, 1919.
Marlborough street (city proper).....	Exeter street, across Fairfield street. Bitulithic (macadam base). Laid by James Doherty.	660	2,616	1914	Aug. 3, 1919.
Marlborough street (city proper).....	Fairfield street, across Gloucester street. Bitulithic (macadam base). Laid by James Doherty.	562	2,248	1914	Aug. 3, 1919.
Marlborough street (city proper).....	Gloucester street, across Hereford street. Bitulithic (macadam base). Laid by James Doherty.	435	1,740	1914	Aug. 3, 1919.
Marlborough street (city proper).....	Hereford street to Massachusetts avenue. Bitulithic (macadam base). Laid by James Doherty.	665	2,660	1914	Aug. 3, 1919.
Marlborough street (Roxbury).....	Massachusetts avenue to 3 feet west. Sicilian rock asphalt. Laid by Boston Asphalt Company.	3	16	1901	
Marlborough street (Roxbury).....	11 feet west of Massachusetts avenue to Charlesgate East. Bitulithic (macadam base). Laid by James Doherty.	640	2,418	1914	Aug. 3, 1919.
Marvin street (Roxbury).....	Shawmut avenue to Washington street. Wood block. Laid by Boston Paving Company.	256	573	1913	Oct. 22, 1918.
Mason street (city proper).....	West street to 6 feet south of West street. Wood block. Laid by United States Wood Preserving Company.	6	14	1908	Sept. 19, 1918.
Mason street (city proper).....	6 feet south of West street to 213 feet south of West street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	209	459	1901	
Mason street (city proper).....	213 feet south of West street to 449 feet south of West street. Bitulithic. Laid by Warren Brothers Company.	236	480	1907	June 1, 1917.
Mason street (city proper).....	449 feet south of West street to 73 feet north of Avery street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	96	200	1909	
Mason street (city proper).....	73 feet north of Avery street to 63 feet north of Avery street. Seyssel rock asphalt. Laid by Jones & Meehan.	10	23	1899	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year. Laid.	Guaranty Expires.
Massachusetts avenue (Roxbury).....	Huntington avenue, across Boylston street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	1,778	8,506	1901	
Massachusetts avenue (Roxbury).....	Boylston street to bridge over Boston & Albany Railroad. Acme asphalt. Laid by Warren Brothers Company.....	99 {	440 12	1909 1901	
Massachusetts avenue (Roxbury).....	Sicilian rock asphalt. Laid by Boston Asphalt Company.....				
Massachusetts avenue (Roxbury).....	Bridge over Boston & Albany Railroad. Wood block. Laid by Coleman Brothers.	75	500	1908	
Massachusetts avenue (Roxbury).....	Bridge over Boston & Albany Railroad to 47 feet north of Newbury street. Trinidad asphalt. Laid by James Doherty.	175	767	1914	Nov. 14, 1919.
Massachusetts avenue (Roxbury).....	47 feet north of Newbury street to 27 feet south of Marlborough street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	656	3,301	1901	
Massachusetts avenue (city proper)....	27 feet south of Marlborough street to Beacon street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	326	1,557	1901	
Massachusetts avenue (city proper)....	Southerly side Beacon street to Harvard Bridge. Bitulithic. Laid by Warren Brothers Company.	237	1,080	1902	
Maverick street (East Boston).....	7 feet west of London street to 7 feet east of Havre street. Bitulithic. Laid by Warren Brothers Company.	162	558	1903	
Maverick street (East Boston).....	Bridge over Boston & Albany Railroad. Trinidad asphalt. Laid by E. R. Taylor Company.....	38 {	59 72	1906-07 1906	
Mayhew street (Dorchester).....	Brick (in street car tracks).....				
Mayo street (city proper).....	Roseclair street to Boston street. Trinidad asphalt. Laid by Charles J. Jacobs Company.	846	2,461	1915	July 19, 1920.
McLean street (city proper).....	7 feet south of Castle street to Cobb street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	244	406	1897	
	Chambers street to 8 feet east of Blossom street. Bitulithic. Laid by Warren Brothers Company.	510	1,307	1905	

Meander street (city proper).....	7 feet east of East Dedham street to 8 feet west of Malden street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	202	416	1896	
Meander street (city proper).....	8 feet west of Malden street to Malden street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	8	11	1902	
Melrose street (city proper).....	Pleasant street to 7 feet west of Pleasant street. Wood block. Laid by Coleman Brothers.	7	19	1913	Dec. 13, 1918.
Melrose street (city proper).....	7 feet west of Pleasant street to Ferdinand street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	737	1,885	1911	
Melville avenue (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	40	1913	Oct. 21, 1918.
Melvinside terrace (Dorchester).....	Dorchester avenue to Minton street. Bitulithic. Laid by James Doherty..	193	404	1915	June 23, 1920.
Mercer street (South Boston).....	At Dorchester street. Bitulithic. Laid by Warren Brothers Company....	4	16	1905	
Meridian street (East Boston).....	24 feet north of Trenton street to 9 feet east of Eutaw street. Sicilian rock asphalt. Laid by Jones & Meehan.	221	540	1900	
Milk street (city proper).....	20 feet west of east side of Pearl street, across Oliver street. Wood block. Laid by James Doherty.	300	1,156	1910	
Milk street (city proper).....	Oliver street to 8 feet west of Broad street. Wood block. Laid by James Doherty.	279	1,045	1911	
Miller street (Charlestown).....	Main street to Lawrence street. Sicilian rock asphalt. Laid by Jones & Meehan.	195	367	1901	
Millet street (Dorchester).....	Each side of Talbot avenue. Brick block. Laid by James Doherty.....	26	135	1911	
Milton avenue (Dorchester).....	Each side of Norfolk street. Bitulithic. Laid by James Doherty.....	18	123	1914	July 11, 1919.
Milton street (city proper).....	Spring street to 2 feet north of Spring street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	2	3	1895	
Milton street (city proper).....	2 feet north of Spring street to Brighton street. Seyssel rock asphalt. Laid by Jones & Meehan.	306	271	1899	
Mindora street (Roxbury).....	At Station street. Bitulithic. Laid by John F. Beatty.....	1	3	1914	Dec. 18, 1919.
Montebello road (West Roxbury).....	Forest Hills street to Walnut avenue. Bitulithic. Laid by Martino De Matteo.	1,077	3,051	1916	July 21, 1921.

List of Streets Having a Smooth Pavement — *Continued.*

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Montgomery street (city proper).....	Each side of Clarendon street. Bitulithic. Laid by Warren Brothers Company.	5	29	1914	Sept. 25, 1919.
Montgomery street (city proper).....	At West Canton street. Acme asphalt (macadam base). Laid by Warren Brothers Company.	3	15	1916	Oct. 21, 1921.
Moon street (city proper).....	North square to 5 feet east of North square. Bitulithic. Laid by Warren Brothers Company.	5	11	1906	
Moon street (city proper).....	5 feet east of North square to 6 feet west of Lewis street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	161	295	1891	
Moon street (city proper).....	6 feet west of Lewis street to 7 feet east of Fleet street. Bitulithic. Laid by Warren Brothers Company.	100	188	1906	
Morse street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	30	1912	Oct. 21, 1918.
Morton street (city proper).....	Salem street to 51 feet east of Endicott street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	274	213	1901	
Morton street (city proper).....	51 feet east of Endicott street to 6 feet east of Endicott street. Standard asphalt. Laid by Central Construction Company.	45	35	1916	
Motley street (Roxbury).....	At Columbus avenue. Bermudes asphalt. Laid by Boston Asphalt Company.	9	21	1906	
Motte street (city proper).....	Washington street to Harrison avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	321	606	1892-99	
Moulton street (Charlestown).....	Easterly side of Corey street to Vine street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	81	243	1897	
Moulton street (Charlestown).....	Vine street to 8 feet east of Bunker Hill street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	113	343	1897	
Moultrie street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	8	24	1913	Oct. 21, 1918.

Mt. Ida road (Dorchester).....	At Bowdoin street. Wood block. Laid by James Doherty.....	11	67	1909
Mt. Pleasant avenue (Roxbury).....	Each side of Dudley street. Brick block. Laid by James Doherty.....	21	73	1910
Mt. Vernon street (city proper).....	Archway under State House. Limmer rock and acme asphalt mixed. Laid by Porter & Pearl.	164	455	1911
Mt. Vernon street (city proper).....	State House to Joy street. Brick.....	263	776	1901
Mystic avenue (Charlestown).....	East side of bridge over Boston & Maine Railroad to Somerville line. Brick.	187	756	1910
Mystic street (city proper).....	Malden street to 7 feet west of Malden street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	7	6	1902
Mystic street (city proper).....	7 feet west of Malden street to 7 feet east of East Dedham street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	190	209	1896
Mystic street (city proper).....	East Dedham street to East Canton street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	202	315	1896
Mystic street (city proper).....	East Canton street to East Brookline street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	202	315	1896
Naahua street (city proper).....	At post office. Wood block. Laid by city forces.....	17	72	1916
Nassau street (city proper).....	At Ash street. Acme asphalt. Laid by Warren Brothers Company.....	7	15	1909
Nelson street (Dorchester).....	At Norfolk street. Bitulithic. Laid by James Doherty.....	15	71	1914
Newbury street (city proper).....	At Arlington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	4	16	1901
Newbury street (city proper).....	Each side of Berkeley street. Bitulithic. Laid by Warren Brothers Com- pany.	4	18	1903
Newbury street (city proper).....	Clarendon street to 4 feet west of Clarendon street. Bitulithic. Laid by Warren Brothers Company.	4	17	1905
Newbury street (city proper).....	Each side of Dartmouth street. Bitulithic. Laid by Warren Brothers Com- pany.	9	38	1903
Newbury street (city proper and Rox- bury).	Fairfield street to 8 feet east of Hereford street. Wood block. Laid by United States Wood Preserving Company.	940	3,760	1901

July 11, 1919.

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Newbury street (Roxbury).....	8 feet east of Hereford street to 148 feet east of Massachusetts avenue. Wood block. Laid by Patrick McGovern.	565	2,327	1903	
Newbury street (Roxbury).....	148 feet east of Massachusetts avenue to 15 feet east of Massachusetts avenue. Wood block. Laid by James Doherty.	133	465	1914	Nov. 14, 1919.
Newbury street (Roxbury).....	15 feet east of Massachusetts avenue to Massachusetts avenue. Trinidad asphalt. Laid by James Doherty.	15	65	1914	Nov. 14, 1919.
Newbury street (Roxbury).....	Massachusetts avenue to 16 feet west of Massachusetts avenue. Trinidad asphalt. Laid by James Doherty.	16	55	1914	Nov. 14, 1919.
Newland street (city proper).....	West Brookline street to Pembroke street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	158	228	1902	
Newland street (city proper).....	Pembroke street to West Newton street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	155	224	1902	
Nightingale street (Dorchester).....	At Talbot avenue. Brick block. Laid by James Doherty.....	13	81	1911	
Norfolk street (Dorchester).....	Washington street to 6 feet south of Washington street. Wood block. Laid by William J. Barry.	6	75	1913	Oct. 21, 1918.
Norfolk street (Dorchester).....	78 feet west of Talbot avenue to 57 feet east of Edson street. Bitulithic. Laid by James Doherty..... Laid by James Doherty.....	1,795 {	6,550 538	1913 1913	July 11, 1919. July 11, 1919.
Norfolk street (Dorchester).....	57 feet east of Edson street to bridge over New York, New Haven & Hartford Railroad, Midland Division. Bitulithic. Laid by James Doherty..... Laid by James Doherty.....	2,352 {	8,222 671	1914 1914	July 11, 1919. July 11, 1919.
Norman street (city proper).....	7 feet north of Green street to South Margin street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	391	697	1905	
Normandy street (Dorchester).....	North side Intervale street to Devon street. Aztec asphalt. Laid by Cen- tral Construction Company.	485	1,403	1916	Oct. 13, 1921.

Normandy street (Dorchester).....	Seaver street to Columbia road. Trinidad asphalt. Laid by James Doherty.	458	1,330	1915	Oct. 22, 1920.
North square (city proper).....	North street to Moon street. Bitulithic. Laid by Warren Brothers Com- pany.	235	1,217	1906	
North Anderson street (city proper)...	7 feet south of Parkman street to Parkman street. Acme asphalt. Laid by Warren Brothers Company..... Brick block gutters. Laid by Warren Brothers Company.....	7 {	16 4	1916 1916	Nov. 28, 1921. Nov. 28, 1921.
North Anderson street (city proper)....	Parkman street to Fruit street. Acme asphalt. Laid by Warren Brothers Company..... Brick block gutters. Laid by Warren Brothers Company.....	76 {	171 43	1916 1916	Nov. 28, 1921. Nov. 28, 1921.
Northampton street (city proper).....	14 feet south of Tremont street to 9 feet north of Shawmut avenue. Wood block. Laid by Fred S. & A. D. Gore Corporation.	894	3,370	1911	
Northampton street (city proper).....	Shawmut avenue to Washington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	370	648	1905	
Northampton street (city proper).....	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1906	
North Bennet street (city proper).....	Hanover street to Salem street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	545	910	1904	
North Harvard street (Brighton).....	33 feet north of Soldiers Field road to Cambridge line. Wood block. Laid by Rowe Contracting Company.	219	973	1914	
North Margin street (city proper).....	Stillman street to 6 feet south of Thacher street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	511	1,161	1895	
North Margin street (city proper).....	6 feet north of Thacher street to 190 feet north of Thacher street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	184	476	1897	
Norway street (Roxbury).....	Huntington avenue to 4 feet west of Huntington avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	4	16	1896	
Norway street (Roxbury).....	Falmouth street to 4 feet west of St. Paul street. Wood block. Laid by United States Wood Preserving Company.	307	917	1909	
Norway street (Roxbury).....	Each side at Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	8	12	1901	
Norwell street (Dorchester).....	At Talbot avenue. Brick block. Laid by James Doherty.....	13	43	1911	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Norwich street (city proper).....	Mystic street to Meander street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	221	339	1896	
Oakwood street (Dorchester).....	At Norfolk street. Bitulithic. Laid by James Doherty.....	1	4	1913	July 11, 1919.
Ohio street (city proper).....	Washington street to Shawmut avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	329	264	1896	
Old Harbor street (South Boston).....	At Dorchester street. Bitulithic. Laid by Warren Brothers Company.....	5	17	1905	
Oliver street (city proper).....	Milk street to 152 feet southerly. Wood block. Laid by James Doherty..	152	591	1910	
Olney street (Dorchester).....	At Geneva avenue. Brick block. Laid by Central Construction Company,	32	204	1911	
Oneida street (city proper).....	Harrison avenue to Albany street. Bitulithic. Laid by Warren Brothers Company.	495	1,045	1903	
Orchard street (Roxbury).....	At Eustis street. Bitulithic. Laid by John F. Beatty.....	1	4	1914	Sept. 4, 1919.
Orchardfield street (Dorchester).....	Freeport street to Dorchester avenue. Aztec asphalt. Laid by Central Construction Company.	814	1,266	1916	Dec. 7, 1921.
Oswego street (city proper).....	Harrison avenue to 3 feet east of Harrison avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	3	7	1901	
Oswego street (city proper).....	3 feet east of Harrison avenue to Albany street. Seyssel rock asphalt. Laid by Jones & Meehan.	502	1,058	1899	
Otis street (city proper).....	At Summer street. Wood block. Laid by Northern Construction Company,	8	29	1915	Aug. 16, 1920.
Oxford street (city proper).....	8 feet north of Beach street to 7 feet south of Essex street (macadam base). Trinidad asphalt. Laid by Barber Asphalt Paving Company.	415	700	1895	
Paleley park (Dorchester).....	At Upland avenue. Aztec asphalt. Laid by Central Construction Com-pany.	15	53	1916	Nov. 28, 1921.

Palmer street (Roxbury).....	121 feet east of Winslow street to 203 feet west of Eustis street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	132	293	1906	
Park square (city proper).....	Boylston street to 100 feet south of Boylston street. Wood block. Laid by United States Wood Preserving Company.	{ 100 2	715 290	1914 1915	Nov. 30 1917. Nov. 30, 1917.
Park square (city proper).....	100 feet south of Boylston street, across Eliot street. Wood block. Laid by United States Wood Preserving Company.	382	2,797	1907	Nov. 30, 1917.
Park square (city proper).....	At Providence street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	.....	325	1912	Nov. 20, 1917.
Park street (city proper).....	At Tremont street. Wood block. Laid by Coleman Brothers.....	7	59	1915	June 20, 1920.
Park street (Dorchester).....	Each side of Washington street. Wood block. Laid by William J. Barry..	20	80	1913	Oct. 21, 1918.
Parker street (Roxbury).....	10 feet north of Edgar street to 8 feet south of Caldwell street. Bitulithio. Granite block base. Laid by Warren Brothers Company.	218	837	1912	Sept. 10, 1917.
Parker street (Roxbury).....	8 feet south of Caldwell street to 6 feet north of Ward street. Standard asphalt (granite block base). Laid by Central Construction Company.	457	1,767	1916	
Parkman street (city proper).....	North Grove street to 7 feet east of North Anderson street. Acme asphalt. Laid by Warren Brothers Company.....	{ 200 }	361 96	1916 1916	Nov. 28, 1921. Nov. 28, 1921.
Parkman street (city proper).....	7 feet east of North Anderson street, across Blossom street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	234	534	1898	
Parkman street (city proper).....	Blossom street to North Russell street. Acme asphalt. Laid by Warren Brothers Company.	230	479	1910	
Parkton road (West Roxbury).....	Perkins street to 369 feet north of Perkins street. Concrete road. Laid by city forces.	800	1,970	1916	
Parmenter street (city proper).....	Hanover street to 5 feet east of Salem street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	274	749	1902	
Parmenter street (city proper).....	5 feet east of Salem street to Salem street. Sicilian rook asphalt. Laid by Boston Asphalt Company.	5	15	1901	
Parnell street (city proper).....	Lenox street to Sawyer street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	250	348	1902	

List of Streets Having a Smooth Pavement —Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Paul street (city proper)	Emerald street to 1 foot west of Emerald street. Bitulithic. Laid by Warren Brothers Company.	1	2	1904	
Paul street (city proper)	Emerald street to Tremont street, minus intersections at Village and Albion streets. Seyssel rock asphalt. Laid by Jones & Meehan.	268	635	1897	
Peacevale road (Dorchester)	Norfolk street to 1 foot south of Norfolk street. Bitulithic. Laid by James Doherty.	1	4	1914	July 11, 1919.
Peacevale road (Dorchester)	1 foot south of Norfolk street to 7 feet north of Dunbar avenue. Trinidad asphalt. Laid by D. M. Biggs & Co.	801	2,315	1915	Oct. 14, 1920.
Pearl street (city proper)	Milk street to 153 feet south of Milk street. Wood block Laid by James Doherty.	153	508	1910	
Pelham street (city proper)	Washington street to Shawmut avenue. Seyssel rock asphalt. Laid by Jones & Meehan.	303	655	1897	
Pemberton square (city proper)	Front of Suffolk County Courthouse. Sicilian rock asphalt. Laid by Boston Asphalt Company.	323	1,365	1894	
Pembroke street (city proper)	At Columbus square. Bitulithic. Laid by Fred S. & A. D. Gore Corporation.	4	17	1912	Aug. 2, 1917.
Perth street (Dorchester)	Quincy street to Fayston street. Bitulithic. Laid by James Doherty.....	218	630	1915	June 23, 1920.
Piedmont street (city proper)	At Pleasant street. Wood block. Laid by Coleman Brothers.....	11	26	1913	Dec. 13, 1918.
Pinckney street (city proper)	7 feet west of Charles street, across Brimmer street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	264	708	1895	
Pine street (city proper)	Washington street to Harrison avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	403	567	1896	
Pleasant street (city proper)	Washington street to Shawmut avenue. Wood block. Laid by Coleman Brothers.	408	1,917	1913	Dec. 13, 1918.

Pleasant street (city proper).....	Bridge over Boston Elevated Railway. Wood block. Laid by Coleman Brothers.	55	244	1913	Dec. 13, 1918.
Pleasant street (city proper).....	Tremont street to Eliot street. Wood block. Laid by Coleman Brothers...	964	4,405	1913	Dec. 13, 1918.
Pleasant street (city proper).....	Eliot street to Park square. Wood block. Laid by United States Wood Preserving Company.	93	425	1907	Nov. 30, 1917.
Pleasant street (Dorchester).....	Hancock street to 84 feet north of Hancock street. Brick block. Laid by Fred S. & A. D. Gore Corporation.	84	1,112	1911	
Poplar street (city proper).....	Chambers street, across Spring street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	615	1,250	1892	
Poplar street (city proper).....	Spring street to 8 feet south of Charles street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	572	1,175	1887	
Porter street (city proper).....	Bridge over Boston Elevated Railway. Wood block. Laid by Coleman Brothers.	11	18	1913	Dec. 13, 1918.
Porter street (East Boston).....	Bridge over Boston & Albany Railroad. Acme asphalt. Laid by W. A. Murtfeldt Company.	37	128	1907	Oct. 19, 1917.
Powellton road (Dorchester).....	Columbia road to Glenarm street. Bitulithic. Laid by James Doherty....	329	950	1915	June 19, 1920.
Prescott street (East Boston).....	Bridge over Boston & Albany Railroad. Acme asphalt. Laid by W. A. Murtfeldt Company.	36	125	1907	Oct. 19, 1917.
Prince street (West Roxbury).....	Arborway at Centre street to Pond street. Trinidad asphalt. Laid by Charles J. Jacobs Company.	1,379	4,079	1915	Nov. 22, 1920.
Prince street (city proper).....	Garden Court street to Hanover street. Bitulithic. Laid by Warren Brothers Company.	134	223	1906	
Prince street (city proper).....	9 feet west of Hanover street to 293 feet west of Hanover street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	284	634	1895	
Prince street (city proper).....	293 feet west of Hanover street to 15 feet east of Salem street. Sicilian rock asphalt. Laid by Jones & Meehan.	198	457	1900	
Prince street (city proper).....	15 feet east of Salem street to Salem street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	15	40	1901	
Providence street (city proper).....	Park square to 75 feet east of Church street. Wood block. Laid by Fred S. & A. D. Gore Corporation.	161	1,400	1912	Nov. 20, 1917.

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Public Alley No. 12 (city proper)	Poplar street to Public Alley No. 14. Sicilian rock asphalt. Laid by Boston Asphalt Company.	77	68	1903	
Public Alley No. 102 (city proper)	23 feet south of Marshall street to Creek square. Seyssel rock asphalt. Laid by Jones & Meehan.	182	184	1899	
Public Alley No. 301 (city proper)	Pinckney street to River street. Trinidad asphalt. Laid by Simpson Brothers Corporation.	270	400	1897	
Public Alley No. 401 (city proper)	Between Huntington avenue and St. Botolph street, from 96 feet west of Irvington street to 60 feet east of Garrison street. Trinidad asphalt. Laid by Simpson Brothers Corporation.	350	362	1899	
Public Alley No. 402 (city proper)	Between Huntington avenue and St. Botolph street, from 67 feet west of Garrison street to 77 feet east of West Newton street. Trinidad asphalt. Laid by Simpson Brothers Corporation.	358	374	1899	
Public Alley No. 403 (city proper)	Between Huntington avenue and St. Botolph street, from 65 feet west of West Newton street to 62 feet east of Cumberland street. Trinidad asphalt. Laid by Simpson Brothers Corporation.	355	370	1899	
Public Alley No. 404 (Roxbury)	Between Huntington avenue and St. Botolph street, from 66 feet south of Cumberland street to Public Alley No. 405. Trinidad asphalt. Laid by Simpson Brothers Corporation.	534	533	1899	
Public Alley No. 405 (Roxbury)	Rear of northeast side of Massachusetts avenue, from 94 feet east of Huntington avenue to 62 feet west of St. Botolph street. Trinidad asphalt. Laid by Simpson Brothers Corporation.	100	89	1899	
Public Alley No. 414 (city proper)	Between Beacon street and Marlborough street, from 53 feet east of Massachusetts avenue to Hereford street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	609	569	1901	
Public Alley No. 415 (city proper)	Between Beacon street and Marlborough street, from Hereford street to Gloucester street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	394	378	1901	

Public Alley No. 416 (city proper).....	520	490	1901
Between Beacon street and Marlborough street, from Gloucester street to Fairfield street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.			
Public Alley No. 417 (city proper).....	630	579	1901
Between Beacon street and Marlborough street, from Fairfield street to Exeter street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.			
Public Alley No. 418 (city proper).....	4	4	1903
At Dartmouth street. Bitulithic. Laid by Warren Brothers Company.....			
Public Alley No. 419 (city proper).....	4	4	1903
Dartmouth street to 4 feet east of Dartmouth street. Bitulithic. Laid by Warren Brothers Company.			
Public Alley No. 419 (city proper).....	550	488	1899
h street, from 4 feet east of Dartmouth street. Trinidad asphalt. Laid by Warren Brothers Company.			
Public Alley No. 419 (city proper).....	13	11	1905
12 feet west of Clarendon street to Clarendon street. Bitulithic. Laid by Warren Brothers Company.			
Public Alley No. 420 (city proper).....	10	9	1905
Clarendon street to 10 feet east of Clarendon street. Bitulithic. Laid by Warren Brothers Company.			
Public Alley No. 420 (city proper).....	561	498	1897
Between Beacon street and Marlborough street, from 10 feet east of Clarendon street to Berkeley street. Trinidad asphalt. Laid by Simpson Brothers Corporation.			
Public Alley No. 421 (city proper).....	12	11	
15 feet west of Arlington street to 3 feet west of Arlington street. Brick.			
Public Alley No. 421 (city proper).....	3	3	1901
3 feet west of Arlington street to Arlington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.			
Public Alley No. 422 (city proper).....	620	579	1902
Between Commonwealth avenue and Marlborough street, from Arlington street to Berkeley street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.			
Public Alley No. 423 (city proper).....	574	538	1902
Between street (Barber) Marlborough street, from Berkeley street. Trinidad asphalt. Laid by Barber.			
Public Alley No. 423 (city proper).....	3	3	1905
3 feet east of Clarendon street to Clarendon street. Bitulithic. Laid by Warren Brothers Company.			
Public Alley No. 424 (city proper).....	3	3	1905
Clarendon street to 3 feet west of Clarendon street. Bitulithic. Laid by Warren Brothers Company.			

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Public Alley No. 424 (city proper).....	Between Commonwealth avenue and Marlborough street, from 3 feet west of Clarendon street to 3 feet east of Dartmouth street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	549	487	1902	
Public Alley No. 424 (city proper).....	3 feet east of Dartmouth street to Dartmouth street. Bitulithio. Laid by Warren Brothers Company.	3	3	1903	
Public Alley No. 425 (city proper).....	Dartmouth street to 8 feet west of Dartmouth street. Bitulithio. Laid by Warren Brothers Company.	8	7	1903	
Public Alley No. 425 (city proper).....	Between Commonwealth avenue and Marlborough street, from 8 feet west of Dartmouth street to 9 feet east of Exeter street. Trinidad asphalt. Laid by Simpson Brothers Corporation.	548	478	1899	
Public Alley No. 426 (city proper).....	Between Commonwealth avenue and Marlborough street, from Exeter street to Fairfield street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	620	591	1901	
Public Alley No. 428 (city proper and Roxbury).	Between Commonwealth avenue and Marlborough street, from Gloucester street to Hereford street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	392	376	1901	
Public Alley No. 429 (Roxbury).....	Between Commonwealth avenue and Marlborough street, from 55 feet west of Hereford street to 77 feet east of Massachusetts avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	530-	501	1901	
Public Alley No. 429 (Roxbury).....	At Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	5	4	1901	
Public Alley No. 430 (Roxbury).....	At Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	7	6	1901	
Public Alley No. 431 (city proper and Roxbury).	Between Commonwealth avenue and Newbury street, from 7 feet east of Hereford street to 83 feet west of Gloucester street. Trinidad asphalt. Laid by Simpson Brothers Corporation.	305	271	1899	
Public Alley No. 434 (city proper).....	Between Commonwealth avenue and Newbury street, from Exeter street to 3 feet west of Dartmouth street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	550	478	1901	

Public Alley No. 434 (city proper).....	3 feet west of Dartmouth street to Dartmouth street. Bitulithic. Laid by Warren Brothers Company.	3	3	1903
Public Alley No. 435 (city proper).....	At Dartmouth street. Bitulithic. Laid by Warren Brothers Company.....	3	3	1903
Public Alley No. 435 (city proper).....	At Clarendon street. Bitulithic. Laid by Warren Brothers Company.....	4	4	1905
Public Alley No. 436 (city proper).....	Clarendon street to 15 feet east of Clarendon street. Bitulithic. Laid by Warren Brothers Company.	15	13	1905
Public Alley No. 436 (city proper).....	and Newbury street, from 15 feet east of street. Sicilian rock asphalt. Laid by	503	528	1901
Public Alley No. 437 (city proper).....	Between Commonwealth avenue and Newbury street, from Berkeley street to Arlington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	628	558	1903
Public Alley No. 438 (city proper).....	Arlington street to 3 feet west of Arlington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company	3	3	1901
Public Alley No. 438 (city proper).....	Between Newbury street and Boylston street, from 3 feet west of Arlington street to 3 feet east of Berkeley street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	635	583	1901
Public Alley No. 438 (city proper).....	3 feet east of Berkeley street to Berkeley street. Bitulithic. Laid by Warren Brothers Company	3	3	1903
Public Alley No. 439 (city proper).....	Clarendon street to 3 feet west of Clarendon street. Bitulithic. Laid by Warren Brothers Company.	3	3	1905
Public Alley No. 439 (city proper).....	Clarendon street to Dartmouth street. Vitrified brick.....	553	492	
Public Alley No. 439 (city proper).....	At Dartmouth street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	1	1	1904
Public Alley No. 440 (city proper).....	Between Newbury street and Boylston street, from Dartmouth street to 3 feet west of Dartmouth street. Bitulithic. Laid by Coleman Brothers.	3	7	1914 Nov. 3, 1919.
Public Alley No. 440 (city proper).....	Between Newbury street and Boylston street, from 3 feet west of Dartmouth street to Exeter street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	550	530	1901
Public Alley No. 441 (city proper).....	Between Newbury street and Boylston street, from Exeter street to Fairfield street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	617	548	1903

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Public Alley No. 442 (city proper)	Between Newbury street and Boylston street, from 59 feet west of Fairfield street to 110 feet east of Gloucester street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	351	312	1901	
Public Alley No. 442 (city proper)	From 110 feet east of Gloucester street to Gloucester street. Wood block. Laid by Boston Asphalt Company.	100	89	1901	
Public Alley No. 444 (Roxbury)	350 feet west of Hereford street to 532 feet west of Hereford street. Concrete road. Laid by Boston Transit Commission.	182	318	1914-15	
Public Alley No. 701 (city proper)	Between Union Park street and Upton street, from 130 feet east of Tremont street to Shawmut avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	521	611	1899	
Public Alley No. 702 (city proper)	Between Shawmut avenue and Tremont street, from Worcester street to West Springfield street. Seyssel rock asphalt. Laid by Jones & Meehan.	208	208	1899	
Public Alley No. 703 (city proper)	40 feet west of Newland street to 40 feet east of Public Alley No. 702. Seyssel rock asphalt. Laid by Jones & Meehan.	118	103	1899	
Public Alley No. 901 (Roxbury)	From 113 feet west of Hemenway street to 113 feet west of Hemenway street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	573	550	1902	
Public Alley No. 905 (Roxbury)	At Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	5	4	1901	
Public Alley No. 908 (Roxbury)	Massachusetts avenue to Marlborough street. Brick block. Laid by Boston Construction Company.	552	493	1915	Oct. 9, 1920.
Randall street (city proper and Roxbury).	8 feet east of Harrison avenue to 6 feet west of Fellows street. Trinidad and Aztec asphalt. Laid by Central Construction Company.	325	724	1916	Aug. 18, 1921.
Randall street (Roxbury)	6 feet east of Fellows street to 1 foot west of Albany street. Trinidad and Aztec asphalt. Laid by Central Construction Company.	264	765	1916	Aug. 18, 1921.
Randall street (Roxbury)	1 foot west of Albany street to Albany street. Bitulithic. Laid by Warren Brothers Company.	1	4	1907	Aug. 3, 1917.

Raven street (Dorchester).....	6 feet south of Crescent avenue to 444 feet south of Crescent avenue. Bitu- lithic. Laid by James Doherty.	438	1,264	1915	June 22, 1920.
Ridgewood street (Dorchester).....	Draper street to Topliff street. Bitulithic. Laid by James Doherty.....	1,063	3,075	1915	July 29, 1920.
Rill street (Dorchester).....	At Hancock street. Brick block. Laid by Central Construction Company.	10	29	1910	
Ripley road (Dorchester).....	Vassar street to Harvard street. Astec asphalt. Laid by Central Con- struction Company.	673	1,946	1916	Dec. 11, 1921.
River street (city proper).....	Beacon street to Mt. Vernon street. Acme asphalt. Laid by Warren Brothers Company.	584	1,220	1912	July 10, 1917.
Rochester street (city proper).....	Harrison avenue to Albany street. Trinidad asphalt. Laid by Central Construction Company.	494	1,110	1914	
Rogers street (South Boston).....	Dorchester street to 21 feet south of Dorchester street. Bitulithic. Laid by Warren Brothers Company.	21	28	1914	Nov. 11, 1919.
Rogers street (South Boston).....	21 feet south of Dorchester street to 12 feet north of Preble street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	332	445	1891	
Rosedale street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	32	1913	Oct. 21, 1918.
Rosewood street (Dorchester).....	Oakland street to Randolph road. Trinidad asphalt. Laid by John Kelly Company.	1,524	4,417	1916	June 24, 1921.
Roxbury street (Roxbury).....	Washington street to Guild row. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	170	895	1904	
Roxbury street (Roxbury).....	Shawmut avenue, across Kent street. Bitulithic. Laid by Warren Brothers Company.	557	2,160	1904	
Ruggles street (Roxbury).....	Washington street to Shawmut avenue. Wood block. Laid by Boston Paving Company.	455	1,277	1913	Oct. 22, 1918.
Ruggles street (Roxbury).....	7 feet west of Shawmut avenue to Cabot street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	1,048	3,062	1907	Aug. 23, 1917.
Ruggles street (Roxbury).....	Cabot street to Tremont street. Brick block. Laid by J. E. Burns & Co.,	460	1,874	1909	
Rutland square (city proper).....	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	56	1908-07	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
St. Alphonsus street (Roxbury).....	8 feet north of Tremont street, across Smith street. Bitulithic. Laid by Warren Brothers Company.	512	1,479	1905	
St. Botolph street (city proper).....	At West Newton street. Bitulithic. Laid by Warren Brothers Company..	1	4	1903	
St. Botolph street (Roxbury).....	Each side of Massachusetts avenue. Bitulithic. Laid by Warren Brothers Company.	8	32	1903	
St. Cecilia street (Roxbury).....	At Belvidere street. Bitulithic. Laid by Warren Brothers Company.....	1	3	1902	
St. Charles street (city proper).....	At Chandler street. Acme asphalt (macadam base). Laid by Warren Brothers Company..... Brick block gutters. Laid by Warren Brothers Company.....	3 {	8 2	1916 1916	Oct. 28, 1921. Oct. 28, 1921.
St. Francis de Sales street (Roxbury)...	Cabot street to Roxbury street. Bitulithic. Laid by James Doherty.....	452	746	1914	Sept. 8, 1919.
St. Germain street (Roxbury).....	At Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	2	10	1901	
St. James avenue (city proper).....	8 feet west of Clarendon street to Huntington avenue. Bitulithic. Laid by Boston Elevated Railway Company.	453	1,576	1914	Nov., 1919.
St. James avenue (city proper).....	At Huntington avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	.....	17	1901	
St. James avenue (city proper).....	At Huntington avenue. Bitulithic. Laid by James Doherty.....	.....	590	1912	Sept. 13, 1917.
St. Joseph street (West Roxbury).....	At South street. Bitulithic. Laid by Warren Brothers Company.....	2	5	1913	Nov. 25, 1918.
St. Paul street (Roxbury).....	Falmouth street to Norway street. Wood block. Laid by United States Wood Preserving Company.	299	777	1909	
St. Stephen street (Roxbury).....	At Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	2	9	1901	

St. William street (Dorchester).....	Dorchester avenue to Auckland street. Trinidad asphalt. Laid by J. J. Sullivan.	317	923	1915	Oct. 18, 1920.
Salem street (city proper).....	Endicott street to 6 feet south of Cross street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	173	330	1901	
Salem street (city proper).....	6 feet north of Cross street to 5 feet north of south side of Baldwin place. Sicilian rock asphalt. Laid by Boston Asphalt Company.	700	1,384	1901	
Salem street (city proper).....	5 feet north of south side of Baldwin place to 64 feet north of Baldwin place. Bitulithic. Laid by Warren Brothers Company.	74	150	1913	
Salem street (city proper).....	64 feet north of Baldwin place to 1 foot north of Prince street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	117	263	1901	
Salutation street (city proper).....	Hanover street to Commercial street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	340	253	1905	
Saratoga street (East Boston).....	Bridge over Boston & Albany Railroad. Acme asphalt. Laid by W. A. Murtfeldt Company.....	95	180 179	1907 1907	Sept. 6, 1917.
	Brick (in street car tracks).....				
Saratoga street (East Boston).....	Bridge over Boston, Revere Beach & Lynn Railroad. Brick.....	89	321	1913	
Saratoga street (East Boston).....	West side bridge over Belle Isle inlet to Winthrop line. Brick block. Laid by Lawlor Brothers.	100	378	1914	Dec. 21, 1919.
Sarsfield street (Roxbury).....	At Columbus avenue. Bermudes asphalt. Laid by Boston Asphalt Company.	18	40	1906-07	
Schiller street (Roxbury).....	At Heath street. Brick block. Laid by Field, Barker & Underwood, Inc.,	8	25	1910	
School street (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	28	1913	Oct. 21, 1918.
Sears street (city proper).....	At India street. Sicilian rock asphalt. Laid by Boston Asphalt Company..	1	4	1901	
Seaverns avenue (West Roxbury).....	At Centre street. Bitulithic. Laid by Warren Brothers Company.....	4	28	1913	Nov. 25, 1918.
Sedgwick street (West Roxbury).....	At South street. Bitulithic. Laid by Warren Brothers Company.....	2	6	1913	Nov. 25, 1918.
Seneca street (city proper).....	Harrison avenue to Albany street. Brick block. Laid by Paving Service..	503	831	1910	
Shawmut avenue (city proper).....	132 feet south of Castle street, across Cherry street. Trinidad asphalt. Laid by Central Construction Company.	327	956	1915	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Shawmut street (city proper)	At Pleasant street. Wood block. Laid by Coleman Brothers	9	27	1913	Dec. 13, 1918.
Sherborn street (Roxbury)	At Commonwealth avenue. Wood block. Laid by Clark & Gore	23	104	1915	Sept. 2, 1920.
Silver street (South Boston)	From A street to railroad bridge. Bitulithic. Laid by Warren Brothers Company.	327	490	1903	
Silver street (South Boston)	Railroad bridge to B street. Bitulithic. Laid by Warren Brothers Company.	157	251	1903	
Silver street (South Boston)	B street to C street. Sicilian rock asphalt. Laid by Jones & Meehan	512	740	1901	
Silver street (South Boston)	C street to D street. Sicilian rock asphalt. Laid by Jones & Meehan	510	737	1901	
Silver street (South Boston)	225 feet west of E street to E street. Bitulithic. Laid by Warren Brothers Company.	225	325	1903	
Silver street (South Boston)	5 feet west of Dorchester street to Dorchester street. Bitulithic. Laid by Warren Brothers Company.	5	8	1905	
Silver street (South Boston)	Dorchester street to 4 feet east of Dorchester street. Bitulithic. Laid by Warren Brothers Company.	4	6	1905	
Simmons street (Roxbury)	Vernon street to Linden Park street. Brick block. Laid by John E. Burns & Co.	645	1,434	1909	
Smith street (Roxbury)	St. Alphonsus street to 7 feet west of Phillips street. Bitulithic. Laid by Warren Brothers Company.	576	1,664	1904	
South street (West Roxbury)	Centre street to 7 feet north of Jamaica street. Bitulithic. Laid by Warren Brothers Company. Wood block. (Brows to street car rails.) Laid by Warren Brothers Company.	} 1,295 {	4,427	1913	Nov. 25, 1918.
South street (West Roxbury)	7 feet north of Jamaica street to north side Keyes street (east side). Bitulithic. Laid by Warren Brothers Company. Wood block. (Brows to street car rails.) Laid by Warren Brothers Company.		300	1913	Nov. 25, 1918.
South street (West Roxbury)			250	1913	Nov. 25, 1918.
			10	1913	Nov. 25, 1918.

Southern avenue (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	42	1913	Oct. 21, 1918.
Southern avenue (Dorchester).....	Each side of Talbot avenue. Brick block. Laid by James Doherty.....	30	193	1911	
South Margin street (city proper).....	2 feet east of Norman street to 7 feet east of Staniford street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	187	380	1905	
Spear place (city proper).....	At Pleasant street. Wood block. Laid by Coleman Brothers.....	10	9	1913	Dec. 13, 1918.
Spencer street (Dorchester).....	At Talbot avenue. Brick block. Laid by James Doherty.....	12	61	1911	
Spring street (city proper).....	Allen street to Poplar street. Bitulithic. Laid by Warren Brothers Com-pany.	205	407	1913	June 30, 1918.
Spring street (city proper).....	Poplar street to Chambers street. Trinidad asphalt (cobble base). Laid by Barber Asphalt Paving Company.	212	425	1895	
Spring street (city proper).....	Chambers street to Leverett street. Trinidad asphalt (cobble base). Laid by Barber Asphalt Paving Company.	216	444	1895	
Stanhope street (city proper).....	At Trinity place. Trinidad asphalt. Laid by Barber Asphalt Paving Com-pany.	7	15	1907	June 18, 1917.
Stanton street (Dorchester).....	At Norfolk street. Bitulithic. Laid by James Doherty.....	9	54	1914	July 11, 1919.
State street (city proper).....	Washington street to East side old State House. Wood block. Laid by James Doherty..... Wood block. Laid by Bernard E. Grant.....	115 11	530 32	1908 1916	Dec. 4, 1918. Dec. 14, 1921.
Station street (Roxbury).....	Columbus avenue to Parker street. Bitulithic. Laid by John F. Beatty...	613	1,770	1914	Dec. 18, 1919.
Stevens street (city proper).....	Lincoln place, toward Shawmut avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	16	22	1897	
Stillman street (city proper).....	Endicott street, across North Margin street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	170	453	1892-95	
Stillman street (city proper).....	At Salem street. Sicilian rock asphalt. Laid by Boston Asphalt Company,	8	7	1901	
Stoddard street (city proper).....	6 feet north of Howard street to 8 feet south of Court street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	121	135	1892	
Stoughton street (city proper).....	Albany street. Sicilian rock asphalt. Laid by Boston Asphalt Company...	12	45	1897	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Stuart street (city proper).....	At Dartmouth street and at Trinity place. Bitulithic. Laid by James Doherty.	6	26	1912	Sept. 13, 1917.
Summer street (city proper).....	At Washington street. Brick block. Laid by Northern Construction Com- pany.	.....	38	1915	
Summer street (city proper).....	Washington street to west side of South street. Wood block. Laid by Northern Construction Company.	1,229	5,668	1915	Aug. 16, 1920.
Sumner street (East Boston).....	Bridge over Boston & Albany Railroad. Limmer rock asphalt. Laid by W. A. Murtfeldt Company.	38	187	1908	June 25, 1918.
Sun Court street (city proper).....	7 feet north of North street to Moon street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	144	211	1891	
Talbot avenue (Dorchester).....	66 feet east of Washington street to Washington street. Wood block. Laid by William J. Barry.	66	571	1913	Oct. 21, 1918.
Talbot avenue (Dorchester).....	215 feet west of Norfolk street to 58 feet east of Blue Hill avenue. Brick block. Laid by James Doherty.	4,300	21,325	1911	
Taylor street (city proper).....	Dwight street to Milford street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	184	257	1896	
Temple place (city proper).....	Washington street to 95 feet west of Washington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	95	318	1906	
Temple place (city proper).....	95 feet west of Washington street to 22 feet east of Tremont street. Trinidad land asphalt. Laid by United States Paving Company.	386	1,229	1900	
Temple place (city proper).....	22 feet east of Tremont street to Tremont street. Wood block. Laid by Coleman Brothers.	22	74	1915	June 20, 1920.
Tennyson street (city proper).....	At Pleasant street. Wood block. Laid by Coleman Brothers.....	10	30	1913	Dec. 13, 1918.
Tetlow street (Roxbury).....	At Worthington street. Trinidad asphalt. Laid by Central Construction Company.	4	14	1915	Jan. 15, 1921.

Thacher street (city proper)	12 feet east of Washington Street North to 5 feet east of Endicott street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	187	512	1892	
Thacher street (city proper)	5 feet east of Endicott street to Endicott street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	5	15	1899	
Thetford avenue (Dorchester)	At Norfolk street. Bitulithic. Laid by James Doherty	9	44	1914	July 11, 1919.
Thomas park (South Boston)	Around Telegraph Hill. Bitulithic. Laid by Warren Brothers Company ..	2,056	7,042	1905	
Thomas street (West Roxbury)	At Centre street. Bitulithic. Laid by Warren Brothers Company	2	7	1913	Nov. 25, 1918.
Tileston street (city proper)	9 feet north of Hanover street, across Unity street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	403	514	1905	
Tileston street (city proper)	Unity street to 6 feet south of Salem street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	157	119	1895	
Tremlett street (Dorchester)	At Washington street. Wood block. Laid by William J. Barry	10	32	1913	Oct. 21, 1918.
Tremont street (city proper)	Scollay square to 19 feet north of Boylston street (except next item). Wood block. Laid by Coleman Brothers.	2,834	10,625	1915	June 20, 1920.
Tremont street (city proper)	20 feet north of Winter street, across Temple place (west side). Wood block. Laid by United States Wood Preserving Company.	.....	685	1900	
Tremont street (city proper)	See Castle square.				
Tremont street (Roxbury)	St. Alphonsus street to Phillips street. Bitulithic. Laid by Warren Brothers Company.	557	1,854	1902	
Trent street (Dorchester)	Clarkson street to 6 feet north of Coleman street. Trinidad asphalt. Laid by William J. Rafferty & Co.	222	498	1915	Dec. 16, 1920.
Trescott street (Dorchester)	Pleasant street to Bakersfield street. Bitulithic. Laid by James Doherty ..	384	1,111	1914	Oct. 13, 1919.
Trinity place (city proper)	Huntington avenue to St. James avenue. Bitulithic. Laid by James Doherty.	124	346	1912	Sept. 13, 1917.
Trinity place (city proper)	St. James avenue, across Stuart street. Bitulithic. Laid by James Doherty,	384	1,503	1912	Sept. 13, 1917.
Trinity place (city proper)	Stuart street to 5 feet south of Stuart street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	5	14	1899	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires
Trinity place (city proper).....	5 feet south of Stuart street, across Stanhope street. Trinidad asphalt. (East side.) Laid by Barber Asphalt Paving Company..... (West side.) Laid by Barber Asphalt Paving Company.....	267 {	408 363	1907 1900	June 18, 1917.
Trull street (Dorchester).....	At Hancock street. Brick block. Laid by Central Construction Company.	10	29	1910	
Tuckerman street (South Boston).....	Dorchester avenue to Middle street. Astec asphalt. Laid by Central Con- struction Company.	367	764	1916	Sept. 11, 1921.
Tudor street (South Boston).....	C street to D street. Sicilian rock asphalt. Laid by Jones & Meehan.....	506	731	1901	
Tudor street (South Boston).....	At Dorchester street. Bitulithic. Laid by Warren Brothers Company....	4	6	1905	
Tufts street (city proper).....	8 feet west of Lincoln street to 13 feet east of Kingston street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	239	527	1901	
Tufts street (city proper).....	13 feet east of Kingston street to Kingston street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	13	33	1910	
Tufts street (city proper).....	8 feet west of South street to 7 feet east of Lincoln street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	211	470	1901	
Tufts street (Charlestown).....	Bunker Hill street to 141 feet north of Bunker Hill street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	141	415	1897	
Tyler street (city proper).....	Beach street to Kneeland street. Bitulithic. Laid by Warren Brothers Company.	306	815	1905	
Tyler street (city proper).....	Kneeland street to Harvard street. Bitulithic. Laid by Warren Brothers Company.	319	850	1905	
Tyler street (city proper).....	Harvard street to Oak street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	518	1,381	1901	
Tyler street (city proper).....	Oak street to Curve street. Bitulithic. Laid by Warren Brothers Company..	428	1,152	1905	

Union Park street (city proper)	Washington street to Harrison avenue. Acme asphalt. Laid by Fred S. & A. D. Gore Corporation.....	461	1,719 685	1913 1916	June 28, 1918.
Unity street (city proper)	Standard asphalt. Laid by Central Construction Company.....	330	500	1897	
Upham avenue (Dorchester)	Charter street to Tileston street. Trinidad asphalt. Laid by Barber As- phalt Paving Company.	10	30	1911	
Upland avenue (Dorchester)	At Hancock street. Brick block. Laid by Central Construction Company.	748	2,509	1916	Nov. 28, 1921.
Utica street (city proper)	Park street to Melville avenue. Astec asphalt. Laid by Central Con- struction Company.	3	5	1901	
Vernon street (Roxbury)	At Tufts street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	798	2,527	1909	
Vernon street (Roxbury)	Tremont street to Cabot street. Brick block. Laid by J. E. Burns & Co...	694	1,788	1907	Nov. 30, 1917.
Vernon street (Roxbury)	80 feet east of Cabot street to 7 feet east of Auburn street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	281	814	1913	Oct. 22, 1918.
Vine street (Roxbury)	Shawmut avenue to Washington street. Wood block. Laid by Boston Paving Company.	7	20	1910	
Vine street (Charlestown)	At Dudley street. Brick block. Laid by James Doherty.....	165	670	1897	
Walden street (Roxbury)	Bunker Hill street, across Moulton street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	8	18	1910	
Wales street (Dorchester)	At Heath street. Brick block. Laid by Field, Barker & Underwood, Inc.,	15	82	1911	
Walpole street (Roxbury)	At Talbot avenue. Brick block. Laid by James Doherty.....	18	46	1906-07	
Warren avenue (city proper)	At Columbus avenue. Bermudes asphalt. Laid by Boston Asphalt Com- pany.	4	25	1906	
Warren avenue (city proper)	Berkeley street to 4 feet west of Berkeley street. Bitulithic. Laid by Warren Brothers Company.	2,046	12,217	1913	Dec. 13, 1918.
Warren street (Roxbury)	4 feet west of Berkeley street to 4 feet east of Pembroke street. Wood block. Laid by Boston Paving Company.	10	73	1911	
Warren street (Roxbury)	At Washington street. Wood block. Laid by James Doherty.....	23	216	1912	Sept. 21, 1917.

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Warren street (Charlestown).....	Winthrop street, across Soley street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	128	302	1901	
Warrenton street (city proper).....	8 feet south of Eliot street to 392 feet south of Eliot street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	384	1,045	1891	
Warrenton street (city proper).....	392 feet south of Eliot street to 9 feet north of Tremont street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	289	630	1884	
Warrenton street (city proper).....	13 feet south of Shawmut avenue to Washington street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	464	928	1891	
Warwick street (Roxbury).....	At Ruggles street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	6	18	1907	Aug. 23, 1917.
Washington Street North (Charlestown)	Bridge over Fitchburg Division, Boston & Maine Railroad. Trinidad asphalt. Laid by Simpson Brothers Corporation.	61	543	1899	
Washington street (city proper).....	8 feet south of Cornhill to 78 feet south of Court avenue. Wood block. Laid by James Doherty.	509	1,475	1908	Nov. 21, 1918.
Washington street (city proper).....	78 feet south of Court avenue to 5 feet south of Milk street. Wood block. Laid by United States Wood Preserving Company.	538	1,860	1907	June 26, 1917.
Washington street (city proper).....	5 feet south of Milk street to Beach street. Wood block. Laid by United States Wood Preserving Company.	2,279	8,600	1906	
Washington street (city proper).....	At Avery street. Wood block. Laid by Coleman Brothers.....	.....	80	1914	Nov. 6, 1919.
Washington street (city proper).....	At Pleasant street. Wood block. Laid by Coleman Brothers.....	.....	20	1913	Dec. 13, 1918.
Washington street (city proper).....	Bridge over Boston & Albany Railroad. Brick. Laid by W. A. Murtfeldt Company.	60	216	1908	
Washington street (Roxbury).....	Williams street to 27 feet north of Marvin street. Wood block. Laid by James Doherty.	1,026	4,779	1911	

Washington street (Roxbury).....	27 feet north of Marvin street, across Zeigler street (west side). Trinidad asphalt. Laid by Barber Asphalt Paving Company.	.....	210	1904
Washington street (Roxbury).....	Zeigler street to 20 feet north of Dudley street. Wood block. Laid by James Doherty.	186	745	1911
Washington street (Roxbury).....	20 feet north of Dudley street to Dudley street. Wood block. Laid by James Doherty.	20	105	1912 Sept. 21, 1917.
Washington street (Roxbury).....	Dudley street to 130 feet south of Dudley street. Wood block. Laid by James Doherty.	130	930	1912 Sept. 21, 1917.
Washington street (West Roxbury).....	La Grange street southerly. Topeka (macadam base.) East roadway. Maintained by Massachusetts Highway Commission..... West roadway. Maintained by Massachusetts Highway Commission.....	4,559 {	9,624 5,491	1916 1916
Washington street (West Roxbury).....	29 feet south of Grove street to 529 feet south of Grove street (east roadway). Concrete road. Maintained by Massachusetts Highway Commission.	500	1,055	1916
Washington street (Roxbury and Dorchester).	Blue Hill avenue to 116 feet south of Fenelon street, and from Eldon street to 42 feet south of Bowdoin street. Wood block. Laid by William J. Barry.	4,010	18,023	1912-13 Oct. 21, 1918.
Washington street (Dorchester).....	42 feet south of Bowdoin street, across Talbot avenue. Wood block. Laid by William J. Barry.	3,440	16,402	1913 Oct. 21, 1918.
Washington street (Brighton).....	Cambridge street to 126 feet west of Chestnut Hill avenue. Bitulithic. Laid by Warren Brothers Company..... Wood block. (Brows to street car rails.) Laid by Warren Brothers Company.	1,021 {	5,030 217	1913 1913 Oct. 24, 1918. Oct. 24, 1918.
Water street (city proper).....	2 feet west of Devonshire street to Devonshire street. Wood block. Laid by Bernard E. Grant.	2	6	1916 Dec. 14, 1921.
Water street (city proper).....	Devonshire street to 7 feet east of Devonshire street. Wood block. Laid by Bernard E. Grant.	7	33	1916 Dec. 14, 1921.
Water street (city proper).....	7 feet east of Devonshire street to 8 feet west of Congress street. Wood block. Laid by United States Wood Preserving Company.	198	885	1907 July 12, 1917.
Water street (city proper).....	7 feet east of Congress street to Kilby street. Residual asphalt. Laid by Central Construction Company.	249	690	1915
Water street (city proper).....	Liberty square to 19 feet east of Liberty square. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	19	46	1896

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Water street (city proper).....	19 feet east of Liberty square to 8 feet west of Broad street. Residual asphalt. Laid by Central Construction Company.	225	614	1915	
Waterford street (city proper).....	8 feet west of Washington street to 1 foot east of Shawmut avenue. Seyssel rock asphalt. Laid by Jones & Meehan.	307	529	1897	
Wellington street (city proper).....	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1906-07	
Wensley street (Roxbury).....	At Heath street. Brick block. Laid by Field, Barker & Underwood, Inc...	8	53	1910	
Wentworth street (Dorchester).....	At Norfolk street. Bitulithic. Laid by James Doherty.....	1	4	1913	July 11, 1919.
West street (city proper).....	Washington street to 8 feet west of Washington street. Brick block.....	8	20	1908	
West street (city proper).....	8 feet west of Washington street to 22 feet east of Tremont street. Wood block. Laid by United States Wood Preserving Company.	463	1,126	1908	Sept. 19, 1918.
West street (city proper).....	22 feet east of Tremont street to Tremont street. Wood block. Laid by Coleman Brothers.	22	64	1915	June 20, 1920.
West Broadway (South Boston).....	196 feet east of Dorchester avenue to 8 feet west of A street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	352	1,278	1892	
West Broadway (South Boston).....	Gardner place to 150 feet east of Gardner place. Sicilian rock asphalt. Laid by Boston Asphalt Company.	150	648	1893	
West Broadway (South Boston).....	150 feet west of F street to 267 feet east of F street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	448	1,544	1897	
West Broadway (South Boston).....	267 feet east of F street to 28 feet west of Dorchester street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	410	1,818	1898	
West Broadway (South Boston).....	28 feet west of Dorchester street (south) to west side of Dorchester street (north). Bitulithic. Laid by Warren Brothers Company.	81	230	1905	
West Brookline street (city proper)....	At Warren avenue. Wood block. Laid by Boston Paving Company.....	4	16	1913	Dec. 13, 1918.

West Canton street (city proper).....	13 feet west of Tremont street to 4 feet east of Warren avenue. Acme asphalt (macadam base). Laid by Warren Brothers Company..... Brick block gutters. Laid by Warren Brothers Company.....	585 {	1,866 320	1916 1916	Oct. 21, 1921. Oct. 21, 1921.
West Canton street (city proper).....	4 feet east of Warren avenue to Warren avenue. Wood block. Laid by Boston Paving Company.	4	18	1913	Dec. 13, 1918.
West Canton street (city proper).....	Warren avenue to 4 feet west of Warren avenue. Wood block. Laid by Boston Paving Company.	4	18	1913	Dec. 13, 1918.
West Canton street (city proper).....	4 feet west of Warren avenue to 2 feet east of Appleton street. Acme asphalt (macadam base). Laid by Warren Brothers Company..... Brick block gutters. Laid by Warren Brothers Company.....	257 {	828 145	1916 1916	Oct. 21, 1921. Oct. 21, 1921.
West Canton street (city proper).....	2 feet east of Appleton street to Appleton street. Bitulithic. Laid by Fred S. & A. D. Gore Corporation.	2	11	1912	Aug. 2, 1917.
West Canton street (city proper).....	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1906-07	
Westcott street (Dorchester).....	At Talbot avenue. Brick block. Laid by James Doherty.....	12	60	1911	
West Fifth street (South Boston).....	At Dorchester street. Bitulithic. Laid by Warren Brothers Company.....	4	15	1905	
West Fourth street (South Boston).....	At Dorchester street. Bitulithic. Laid by Warren Brothers Company.....	5	19	1905	
West Fourth street (South Boston).....	2 feet east of E street to E street. Bitulithic. Laid by Warren Brothers Company.	2	7	1903	
West Fourth street (South Boston).....	E street to 207 feet west of E street. Bitulithic. Laid by Warren Brothers Company.	207	759	1903	
Westland avenue (Roxbury).....	At Massachusetts avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	1	9	1901	
Westminster street (Roxbury).....	At Hammond street. Wood block. Laid by Fred S. & A. D. Gore Corpora- tion.	23	120	1912	Nov. 12, 1917.
Westminster street (Roxbury).....	At Ruggles street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	6	17	1907	Aug. 23, 1917.
West Newton street (city proper).....	13 feet west of Tremont street to 13 feet east of Columbus avenue. Bitulithic. Laid by Warren Brothers Company.	765	3,083	1904	

List of Streets Having a Smooth Pavement — Continued.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
West Newton street (city proper)	13 feet east of Columbus avenue to Columbus avenue. Bitulithic. Laid by Fred S. & A. D. Gore Corporation.	13	97	1912	Aug. 2, 1917.
West Newton street (city proper)	Columbus avenue to 10 feet south of Huntington avenue, minus area and length of New York, New Haven & Hartford Railroad Bridge. Bitulithic. Laid by Warren Brothers Company.	1,034	3,909	1903	
West Newton street (city proper)	4 feet south of Huntington avenue to Huntington avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	4	19	1896	
West Newton street (city proper)	Huntington avenue to 4 feet north of Huntington avenue. Sicilian rock asphalt. Laid by Boston Asphalt Company.	4	19	1896	
West Newton street (city proper)	4 feet north of Huntington avenue, across Belvidere street. Bitulithic. Laid by Warren Brothers Company.	248	933	1903	
Weston street (Roxbury)	At Columbus avenue. Bermudez asphalt. Laid by Boston Asphalt Company.	9	20	1906-07	
West Rutland square (city proper)	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1906-07	
West Seventh street (South Boston)	At Dorchester street. Bitulithic. Laid by Warren Brothers Company. . . .	4	16	1905	
West Sixth street (South Boston)	At Dorchester avenue. Bitulithic. Laid by Warren Brothers Company. . . .	4	18	1905	
West Sixth street (South Boston)	C street to D street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	503	1,490	1905	
West Springfield street (city proper)	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1906-07	
West Third street (South Boston)	153 feet west of E street to 2 feet east of E street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	187	702	1892	
West Tremlett street (Dorchester)	At Washington street. Wood block. Laid by William J. Barry.	10	24	1913	Oct. 21, 1918.

Wharf street (city proper).....	At India street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	• 1	3	1901	
Wheatland avenue (Dorchester).....	At Washington street. Wood block. Laid by William J. Barry.....	10	38	1913	Oct. 21, 1918.
Wheeler street (city proper).....	Shawmut avenue to Corning street. Acme asphalt. Laid by Warren Brothers Company.	360	585	1909	
Whitfield street (Dorchester).....	13 feet north of Talbot avenue to Talbot avenue. Brick block. Laid by James Doherty.	13	60	1911	
Whitfield street (Dorchester).....	Talbot avenue to 13 feet south of Talbot avenue. Brick block. Laid by James Doherty.	13	57	1911	
Whitfield street (Dorchester).....	13 feet south of Talbot avenue to 6 feet north of Southern avenue. Trinidad asphalt. Laid by Central Construction Company.	88	265	1914	Dec. 10, 1919.
Whitfield street (Dorchester).....	9 feet south of Southern avenue to 2 feet north of Norfolk street. Trinidad asphalt. Laid by Central Construction Company.	414	1,212	1914	Dec. 10, 1919.
Whitfield street (Dorchester).....	2 feet north of Norfolk street to Norfolk street. Bitulithic. Laid by James Doherty.	2	7	1914	July 11, 1919.
Whitman street (Dorchester).....	At Norfolk street. Bitulithic. Laid by James Doherty.....	1	4	1913	July 11, 1919.
Whitmore street (city proper).....	8 feet south of Kneeland street to 6 feet north of Harvard street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	235	417	1895	
Whitmore street (city proper).....	6 feet north of Harvard street to Harvard street. Wood block. Laid by J. H. McCarthy.	6	10	1910	
Whittemore terrace (Dorchester).....	At Hancock street. Brick block. Laid by Central Construction Company.	10	26	1911	
Whittier street (Roxbury).....	Cabot street to Tremont street. Brick block. Laid by John E. Burns & Co.,	636	1,874	1909	
Whittier street (Roxbury).....	Tremont street to 5 feet east of Columbus avenue. Brick block. Laid by John E. Burns & Co.	207	782	1909	
Whittier street (Roxbury).....	5 feet east of Columbus avenue to Columbus avenue. Bermudes asphalt. Laid by Boston Asphalt Company.	5	25	1906-07	
Wiget street (city proper).....	Salem street to 6 feet west of Salem street. Sicilian rock asphalt. Laid by Boston Asphalt Company.	6	7	1901	

List of Streets Having a Smooth Pavement — Concluded.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Wiget street (city proper)	6 feet west of Salem street to North Margin street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	253	233	1897	
Wiggin street (city proper)	North Bennet street to Tileston street. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	108	120	1905	
Wigglesworth street (Roxbury)	At Longwood avenue. Brick block. Laid by Field, Barker & Underwood, Inc.	8	23	1910	
Wilder street (Dorchester)	At Washington street. Wood block. Laid by William J. Barry	10	30	1912	Oct. 21, 1918.
Winchester street (city proper)	At Pleasant street. Wood block. Laid by Coleman Brothers	10	28	1913	Dec. 13, 1918.
Winship street (Brighton)	At Washington street. Bitulithic. Laid by Warren Brothers Company	18	140	1913	Oct. 24, 1918.
Winslow street (Roxbury)	At Zeigler street. Bitulithic. Laid by John F. Beatty	1	3	1914	Aug. 31, 1919.
Winslow street (Roxbury)	At Dudley street. Brick block. Laid by James Doherty	8	23	1910	
Winter street (city proper)	Washington street to 10 feet east of Tremont street. Bitulithic. Laid by Warren Brothers Company.	505	1,122	1913	Aug. 29, 1918.
Winter street (city proper)	10 feet east of Tremont street to Tremont street. Wood block. Laid by Coleman Brothers.	10	31	1915	June 20, 1920.
Winter street (Dorchester)	At Bowdoin street. Brick block. Laid by Central Construction Company.	9	45	1913	Sept. 12, 1918.
Wirt street (Brighton)	At Washington street. Bitulithic. Laid by Warren Brothers Company	12	212	1913	Oct. 24, 1918.
Withington street (Dorchester)	At Norfolk street. Bitulithic. Laid by James Doherty	1	4	1913	July 11, 1919.
Woodcliff street (Roxbury)	Dacia street to Blue Hill avenue. Bitulithic. Laid by Warren Brothers Company.	310	896	1906	
Worcester street (city proper)	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1906-07	

Worthington street (Roxbury)	8 feet south of Longwood avenue to Longwood avenue. Laid by Field, Barber & Underwood, Inc.	8	23	1910	
Worthington street (Roxbury)	Longwood avenue to 8 feet north of Longwood avenue. Laid by Field, Barber & Underwood, Inc.	8	26	1910	
Worthington street (Roxbury)	8 feet north of Longwood avenue to street No. 220. Trinidad asphalt. Laid by Central Construction Company.	828	2,395	1915	Jan. 15, 1921.
Yarmouth street (city proper)	At Columbus avenue. Trinidad asphalt. Laid by Barber Asphalt Paving Company.	9	34	1908	
Zeigler street (Roxbury)	7 feet east of Washington street to Warren street. Granitoid concrete block pavement. Laid by R. S. Blome Company.	315	946	1908	
Zeigler street (Roxbury)	Warren street to Harrison avenue. Bitulithic. Laid by John F. Beatty.....	177	380	1914	Aug. 31, 1919.
Zeigler street (Roxbury)	8 feet east of Harrison avenue to 6 feet west of Dearborn street. Bitulithic. Laid by John F. Beatty.	869	1870	1914	Aug. 31, 1919.

SUMMARIES OF SMOOTH PAVEMENT STREETS, FEBRUARY 1, 1917.
Asphalt.

KIND.	UNDER GUARANTY.		NOT UNDER GUARANTY.		TOTALS.	
	Length, Feet.	Area, Square Yards.	Length, Feet.	Area, Square Yards.	Length, Feet.	Area, Square Yards.
Trinidad asphalt.....	21,896	65,692	54,741	144,407	76,636	210,099
Sicilian rock asphalt.....			33,698	93,199	33,698	93,199
Seyssel rock asphalt.....			2,810	4,786	2,810	4,786
American rock asphalt.	758	3,039	806	2,772	1,564	5,811
Limmer rock asphalt.....	38	187			38	187
Limmer rock and Acme asphalts mixed.....			164	455	164	455
Acme asphalt.....	7,116	21,504	3,880	11,332	10,996	32,836
Bermudez asphalt.....			4,018	16,060	4,018	16,060
Residual asphalt.....			1,272	3,810	1,272	3,810
Standard asphalt.....			45	1,680	45	1,680
Standard and Astec asphalts.....			457	1,767	457	1,767
Astec and Trinidad asphalts.....	589	1,489			589	1,489
Astec asphalt.....	6,434	18,190			6,434	18,190
Total of all asphalts.....	36,830	110,101	101,891	280,268	138,721	390,369

Summaries of Smooth Pavement Streets, February 1, 1917.—Concluded.

KIND.	UNDER GUARANTY.		NOT UNDER GUARANTY.		TOTALS.	
	Length, Feet.	Area, Square Yards.	Length, Feet.	Area, Square Yards.	Length, Feet.	Area, Square Yards.
Asphalt block.....	.....	.....	98	774	98	774
Bitulithic.....	43,843	178,043	28,172	98,298	72,015	276,341
Topeka.....	4,983	16,355	.....	.....	4,983	16,355
Endurite.....	467	1,816	.....	.....	467	1,816
Hasam pavement.....	.....	.....	139	672	139	672
Granitoid concrete block pavement.....	.....	.....	315	946	315	946
Concrete road.....	500	1,055	3,784	9,986	4,284	11,041
Roman road.....	433	1,250	.....	.....	433	1,250
Wood block.....	33,555	168,317	14,595	56,251	48,150	224,568
Brick block.....	1,181	6,823	27,414	106,125	28,595	112,948
Scoria block.....	.....	.....	322	254	322	254
Total of all smooth pavements.....	121,792	483,760	176,730	553,574	298,522	1,037,334

LIST OF STREETS PAVED WITH GRANITE BLOCKS HAVING A MAINTENANCE GUARANTY.

STREETS.	Limits.	Length in Feet.	Area, Square Yards.	Year Laid.	Guaranty Expires.
Albany street (city proper).....	Dover street, across Malden street. Laid by Bernard E. Grant.....	1,662	10,654	1916	1922.
Batterymarch street (city proper).....	2 feet west of Broad street to 93 feet west of Broad street. Laid by Bernard E. Grant.	91	282	1916	Oct. 20, 1921.
Batterymarch street (city proper).....	Angle to Franklin street. Laid by Bernard E. Grant.....	197	808	1916	Oct 20, 1921.
Columbia road (Dorchester).....	8 feet north of Dudley street to 52 feet south of East Cottage street. Laid by Bernard E. Grant.	1,461	4,630	1916	Nov. 18, 1921.
Devonshire street (city proper).....	Dock square to 75 feet south of Dock square (east side). Laid by Bernard E. Grant.	75	117	1916	Dec. 14, 1921.
School street (city proper).....	Washington street to Tremont street. Laid by Bernard E. Grant.....	570	1,298	1916	Nov. 13, 1921.
Washington street (West Roxbury).....	Arborway across Asticou road (west side). Laid by James Doherty.....	.....	2,240	1916	Dec. 2, 1921.
	Total.....	4,056	20,029		

HIGHWAY DIVISION — SANITARY SERVICE.

FINANCIAL STATEMENT.

Appropriation	\$963,488 76
Transfers	5,950 12
	<u>\$969,438 88</u>

INCOME.

Statement showing amount of cash and bills deposited with the City Collector from February 1, 1916, to January 31, 1917, and credited to the General Revenue.

Tickets for the removal of ashes and waste	\$57,548 05
Bills for the removal of ashes and waste	269 71
Use of scow	310 00
Old material	153 81
Work done and material furnished	66 66
Old scow sold	10 00
Manure (less abatements)	1,647 91
Horse killed on account of glanders	50 00
	<u>\$60,056 14</u>

AMOUNT PAID INTO THE CITY TREASURY DURING THE YEAR.

Removal of ashes and waste	\$57,548 05
Work done and material furnished	80 08
Use of scow	310 00
Old material	153 81
Old scow	10 00
Horse killed	50 00
Manure	1,647 91
	<u>\$59,799 85</u>

SPECIAL APPROPRIATION.

REFUSE TRANSFER STATION.

Ward Street Receiving Station.

Engineering	\$95 72
Engineering expense	1 15
Amount paid to the Boston Bridge Works, under contract	188 71
Lumber	204 69
Hose	45 50
Forging castings	326 13
Scale, 10-ton	227 50
Wire	38 30
Moving building	25 00
Cement	23 76
Crushed stone	12 77
Sand	6 86
Hardware	1 60
Paving driveway	100 81
	<u>\$1,298 50</u>

Total Cost of House Dirt, Waste, Rubbish and House Offal.

Salaries of division engineer, supervisor and medical inspector	\$6,034 33
Office supplies and expenses, printing, stationery, etc.	4,076 78
Ashes, waste and rubbish account	608,950 09
House offal account	270,059 43
Annuities	\$600 00
Retired veterans' pensions	4,166 94
Retired laborers' pensions	13,120 68
	<u>17,887 62</u>
Carried forward	\$907,008 25

* Cost for 1913	\$436 22
Cost for 1914	18,679 95
Cost for 1915	18,333 21
Cost for 1916	1,298 50
	<u>\$38,747 88</u>

PUBLIC WORKS DEPARTMENT.

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<i>Brought forward</i>		\$907,008 25
Construction, Repair and Horseshoeing Account:		
Expended for labor	\$54,636 38	
Expended for stock	26,355 47	
	<hr/>	80, 991 85
		<hr/>
		\$988,000 10
Work done for other services and paid for by the payment of bills and pay rolls:		
Bridge Service	\$247 10	
Paving Service	3,379 06	
Sewer Service	309 65	
Street Cleaning Service	10,960 02	
Water Service	3,665 41	
	<hr/>	18,561 24
		<hr/>
		<u>\$969,438 86</u>

Items of Expenditure for the Year 1916-17.

Salary, division engineer (in part).....	\$834 00
Salary, medical inspector (in part).....	499 98
Salary, chief veterinarian (in part).....	1,000 00
Salary, supervisor (in part).....	1,745 12
Salary, general foreman (in part).....	1,246 70
Salaries, yard clerks.....	2,178 02
Salaries, foremen.....	12,565 28
Labor, collecting and disposing of house dirt and ashes.....	212,697 72
Labor, collecting and disposing of waste and rubbish.....	32,009 01
Labor, collecting and disposing of house offal.....	164,801 24
Labor and stock at stable and yards.....	57,797 50
Hired teams on ashes.....	151,530 39
Hired teams on offal.....	8,763 44
Contracts on ashes, East Boston, Brighton, West Roxbury and Dorchester....	84,296 11
Contracts on offal, East Boston, Brighton, West Roxbury and Dorchester....	38,309 67
Holidays, pay allowed.....	26,218 37
Vacations, pay allowed.....	15,066 10
Military service, pay allowed.....	756 00
Grain.....	21,039 15
Hay and straw.....	25,606 70
Medical attendance and pay allowed injured employees.....	6,648 89
Veterinary services and medicines.....	793 74
Horses, purchase of.....	2,112 50
Horse hire.....	33 00
Outside board of horses.....	1,044 00
Outside wheelwrighting, blacksmithing, horseshoeing, etc.....	7,502 33
Labor and stock, wheelwright, blacksmith, painting, etc.....	51,074 93
Repairs to stables and sheds.....	818 02
Fuel.....	1,625 34
Gas.....	496 22
Electric light and power.....	3,956 50
Printing, stationery, office supplies, etc.....	2,311 07
Automobile expense.....	12,140 58

	Super- visor.	South Boston Electric Truck.	Charles- town Electric Truck.	Garford.	Roxbury Ford.	South End Truck.	Total.
Cost.....					\$363 25		\$363 25
Supplies.....	\$113 56	\$331 45	\$596 52	\$703 40	26 85	\$67 68	1,839 46
Repairs.....	1,246 77	211 60	2,103 18	1,786 74	54 47	163 42	5,566 18
Tires and tubes....	151 05	208 28	104 14				463 47
Gasolene.....	194 13			22 51	4 65	48 20	269 49
Storage.....	61 45	66 75	100 00	120 00			348 20
Chauffeurs' wages..	708 53	1,000 00	1,000 00	582 00			3,290 53
Totals.....	\$2,475 49	\$1,818 08	\$3,903 84	\$3,214 65	\$449 22	\$279 30	\$12,140 58

Telephone tolls and rentals.....	2,033 62
Annuities.....	600 00
Retired veterans' pension.....	4,166 94
Retired laborers' pension.....	13,120 68
	<u>\$969,438 86</u>

Construction and Repair Shops, 1916-17.

For work done and materials furnished for other services and for the Sanitary Service the different shops received and expended the following amounts:

	STOCK AND LABOR.		Total.
	Other Services.	Sanitary.	
Wheelwright.....	\$6,481 31	\$3,767 60	\$10,248 91
Blacksmith.....	5,429 02	8,766 31	14,195 33
Paint.....	2,882 20	5,602 91	8,485 11
Harness.....	2,347 16	6,482 53	8,829 69
Horseshoeing — South End,	1,421 55	2,658 70	4,080 25
Horseshoeing — West End,		2,095 97	2,095 97
Horseshoeing — Roxbury...		2,388 92	2,388 92
Totals, stock and labor,	\$18,561 24	\$31,762 94	\$50,324 18

Foreman	\$1,795 04	
Clerk	797 68	
Express teamster	780 01	
Holidays, pay allowed	4,840 76	
Vacation and military	2,441 54	
Expended for electric power	421 35	
		\$11,076 38
Total cost, maintenance		\$61,400 56
Income from outside services and depart- ments		18,561 24
Net cost of shops		<u>\$42,839 32</u>

*Detailed Accounts of Amounts Paid to the Sanitary Service
During Year Ending January 31, 1917, by the Payment
of Bills and Pay Rolls.*

For repair and construction work	\$17,200 57
For horseshoeing	1,674 80
For hay, straw, grain and board and care of horses,	795 00
For feeders, stablemen and watchmen	795 00
For furnishing of prison vans and printing	48 76
	<u>* \$20,514 13</u>

* Includes bill paid by the County of Suffolk, \$1,952.89.

Horseshoeing, by Divisions.

KINDS AND STYLES.	HIGHWAY DIVISION.			Sewer and Water Division, Sewer Service.	Sewer and Water Division, Water Service.	County of Suffolk.	Totals.
	Sanitary Service.	Street Cleaning and Oiling Service.	Paving Service.				
Plain shoes.....	6,430	4,627	507	140	1,125	167	12,996
Bar shoes.....	558	256	41	10	109	24	998
Leathers.....	5,070	3,927	221	75	475	31	9,799
Resets.....	1,191	885	61	78	269	44	2,528
Pads.....	245	459	176	12	136	127	1,155

Cost of Horseshoeing.

	Division Shops.	Outside Shops.
Stock.....	\$1,794 21	\$3,186 34
Labor.....	6,770 93	
Totals.....	\$8,565 14	\$3,186 34

Amount Expended for the Collection and Disposal of Ashes, Garbage, Waste and Rubbish by Districts.

Districts.	Popula- tion.	ASHES.		GARBAGE.		WASTE AND RUBBISH.		Total Cost.	Total Cost per Capita.
		Cost.	Cost per Capita.	Cost.	Cost per Capita.	Cost.	Cost per Capita.		
1. South Boston.....	76,072	\$36,734 32	\$0 4828	\$17,367 74	\$0 2283	\$533 50	\$0 0070	\$54,635 56	\$0 7181
2. East Boston.....	67,162	12,165 02	0 1811	6,882 28	0 1024	.....	.....	19,047 30	0 2835
3. Charlestown.....	40,494	32,127 96	0 7934	11,782 25	0 2909	32 50	0 0108	43,942 71	1 0851
4. Brighton.....	35,567	16,372 42	0 4603	8,377 93	0 2355	.....	.....	24,750 35	0 6958
5. West Roxbury.....	53,179	27,634 74	0 5196	14,687 88	0 2762	1,428 00	0 0268	43,750 62	0 8226
6. Dorchester.....	140,952	54,726 00	0 3882	28,890 11	0 2049	.....	.....	83,616 11	0 5931
7. Roxbury.....	128,546	102,204 25	0 7958	45,190 98	0 3515	3,173 50	0 0246	150,658 73	1 1719
8 and 9. South End and Back Bay.....	116,987	132,627 64	1 1336	47,567 07.	0 4066	31,547 60	0 2696	211,742 31	1 8098
10. North and West Ends.....	85,306	71,399 34	0 8369	15,532 76	0 1820	7,149 95	0 0838	94,082 05	1 1027
12. Hyde Park.....	17,991	4,083 58	0 2269	1,932 57	0 1074	.....	.....	6,016 15	0 3343
Disposal from stations.....	.....	73,071 91	.....	71,847 86	.....	1,847 86	.....	146,767 63	.....
Totals.....	762,256	\$563,237 18	.....	\$270,059 43	.....	\$45,712 91	.....	\$879,009 52	.....

Force Employed on House Dirt and Ashes January 31, 1917.

CITY FORCE.	Number.	Hired Teams.	CONTRACTORS' TEAMS.					Total.
			East Boston.	Brighton.	West Roxbury.	Dorchester.	Hyde Park.	
Inspectors.....	28	.....	.....	.....	.....	.....	.....	28
Teamsters.....	88	62	4	7	3	12	2	178
Helpers.....	92	130	9	9	4	38	3	285
Dumpers.....	1	.....	.....	.....	.....	.....	.....	1
Totals.....	209	192	13	16	7	50	5	492

Force Employed on House Offal January 31, 1917.

CITY FORCE.	Number.	Hired Teams.	CONTRACTORS' TEAMS.					Total.
			East Boston.	Brighton.	West Roxbury.	Dorchester.	Hyde Park.	
Inspectors.....	11	.....	.....	.....	.....	.....	.....	11
Teamsters.....	43	5	3	7	4	9	2	73
Helpers.....	49	9	6	7	4	9	2	86
Totals.....	103	14	9	14	8	18	4	170

Force Employed on Waste and Rubbish January 31, 1917.

CITY FORCE.	Number.
Inspectors.....	1
Teamsters.....	16
Helpers.....	26
Total.....	43

Amount of House Dirt and Ashes Removed.

YEARS.	Loads.	Cubic Yards.	Tons.
1912.....	282,190	781,140	368,327
1913.....	269,982	715,928	337,560
1914.....	273,405	760,848	358,740
1915.....	262,235	748,992	353,138
1916.....	238,261	795,862	324,313

Amount of House Offal Removed.

YEARS.	Loads.	Cubic Yards.	Tons.
1912.....	49,102	108,832	73,462
1913.....	54,873	* 124,302	† 83,903
1914.....	51,523	112,847	76,172
1915.....	50,482	113,348	76,511
1916.....	48,329	118,770	70,075

* Less 19,232.

† Less 12,982, error in Dorchester district.

Amount of Waste and Rubbish Removed.

YEARS.	LOADS.		Cubic Yards.	Tons.
	Paper Carts.	Market Wagons.		
1912.....	1,308	5,490	66,598	8,632
1913.....	1,174	7,812	75,257	9,747
1914.....	1,691	8,722	82,978	10,778
1915.....	2,212	6,948	70,779	9,192
1916.....	4,302	7,031	79,909	10,744

Number of Loads of Material Collected from February 1, 1912, to January 25, 1917.

YEARS.	Ashes.	Offal.	Rubbish.	Total Loads.	Tons.
1912.....	282,190	49,107	6,798	338,095	450,421
1913.....	269,982	54,873	8,986	338,841	* 431,220
1914.....	273,405	51,523	10,413	335,341	445,690
1915.....	262,235	50,482	9,160	321,877	438,841
1916.....	238,261	48,329	11,333	297,923	405,132

Capacity of Carts and Wagons in Use by the Sanitary Service.

	Pounds.	Cubic Feet.
Single ash carts.....	2,037	67.5
Double ash carts (city).....	3,270	108
Double ash carts (contractors).....	4,075	135
Paper carts.....	1,400	146
Paper wagons.....	2,200	219
Single offal wagons.....	2,360	54
Double offal wagons.....	4,130	94
Auto.....	8,150	270

* Less 12,982 tons, error in Dorchester district.

Loads Collected by Contractors.

DISTRICTS.	ASH LOADS.			Paper Carts.	Paper Wagons.	Cubic Yards.	Tons.		Total Tons Ashes and Paper.	OFFAL LOADS.				
	Double.	Autos.	Cubic Yards.				Ashes.	Paper.		Single.	Double.	Autos.	Cubic Yards.	Tons.
East Boston.....	10,740	.....	53,700	.....	.....	.....	21,883	.....	21,883	.....	1,508	.....	5,271	3,109
Brighton.....	14,397	.....	57,588	.....	.....	.....	23,467	.....	23,467	.....	2,565	.....	8,978	5,299
West Roxbury.....	7,149	.....	28,596	.....	.....	.....	11,653	.....	11,653	.....	1,391	.....	4,868	2,872
Dorchester.....	29,058	3,633	152,562	548	527	7,230	62,172	964	63,136	97	5,552	.....	19,626	11,580
Hyde Park.....	3,019	.....	12,076	.....	.....	.....	4,921	.....	4,921	195	181	211	2,711	1,600
Totals.....	64,363	3,633	304,522	548	527	7,230	124,096	964	125,060	292	11,195	211	39,013	24,460

Summary.

MATERIAL.		Tons.	
Ashes.....		304,522	124,096
Offal.....		39,013	24,460
Paper.....		7,230	964
Totals.....		350,765	149,520

Loads and Tonnage of Material Collected by Districts.

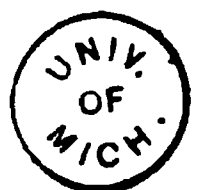
Class of Refuse.	1. South Boston.	2. East Boston.	3. Charlestown.	4. Brighton.	5. West Roxbury.	6. Dorchester.	7. Roxbury.	8-9. South End and Back Bay.	10. North and West Ends.	11. Hyde Park.	Total Tons, (2,000 Pounds).	Total Loads.	Cubic Yards.
House dirt and ashes:													
Loads.....	18,669	10,740	10,750	14,397	16,335	32,691	30,890	56,441	44,329	3,019	.....	238,261	795,862
Tons.....	22,179	21,883	12,819	23,467	25,972	62,172	37,148	68,187	45,565	4,921	324,313		
Offal:													
Loads.....	3,809	1,506	2,238	2,565	3,996	5,649	7,390	15,075	5,514	587	.....	48,329	118,770
Tons.....	4,767	3,109	2,640	5,299	6,753	11,580	10,032	17,789	6,506	1,600	70,075		
Waste and rubbish:													
Loads.....	279	.....	.....	.....	301	1,075	600	7,098	1,980	.....	.....	11,333	79,909
Tons.....	216	.....	.....	.....	280	964	660	6,709	1,915	.....	10,744		
Totals { Loads.....	22,757	12,246	12,988	16,962	20,632	39,415	38,880	78,614	51,823	3,607	.....	297,923	994,541
{ Tons.....	27,162	24,992	15,459	128,766	33,005	74,716	47,840	92,685	53,986	6,521	405,132		

**Final Disposition of all Material, in Loads and Tons (2,000 Pounds),
Collected by the Sanitary Service from February 4, 1916, to
January 25, 1917.**

CLASS OF REFUSE.	Boston Development and Sanitary Company.	Collected and Disposed of by Contractors.	Total Number of Loads Disposed of.	Total Tons.
House dirt and ashes.....	202,956 262,389	35,305 61,924	238,261	324,313
Offal.....	42,280 57,195	6,049 12,880	48,329	70,075
Waste and rubbish.....	11,333 10,744	..... .....	11,333	10,744
Totals { Loads.....	256,569	41,354	297,923	405,132
{ Tons.....	330,328	74,804	.....

NOTE.— First item, loads. Second item, tons.





Cost of Collection and Disposal of Refuse by Contract in the City of Boston for the Year 1916-17.

Contract Districts and Population.	CHARACTER OF REFUSE.	Tons. (2,000 lbs.)	Total Tons.	Cost per Ton by Districts; Collection and Disposal.	Cost by Districts.			Where Disposed of.
					Cost.	Total Cost.	Total Cost per Capita.	
2.. (67,162)	(Mixed refuse, principally ashes (no kitchen wastes)	21,883	.....	\$0 5560	\$12,165 02	.....	.....	Inland dumps.
	(Garbage, principally kitchen wastes	3,109	.....	2 2458	6,882 28	.....	.....	*
4.. (35,567)	(Mixed refuse, principally ashes (no kitchen wastes)	23,467	.....	Av. \$0 7621	\$16,372 42	.....	\$0 2836	Inland dumps.
	(Garbage, principally kitchen wastes	5,299	.....	1 5816	8,377 93	.....	.....	*
5.. (29,593)	(Mixed refuse, principally ashes (no kitchen wastes)	11,653	.....	Av. \$0 8951	\$8,084 24	.....	0 6958	Inland dumps.
	(Garbage, principally kitchen wastes	2,872	.....	\$0 6937	3,279 77	.....	.....	*
6.. (140,952)	(Mixed refuse, principally ashes (no kitchen wastes)	62,172	.....	Av. \$0 7823	\$54,726 00	.....	0 3839	
	(Garbage, principally kitchen wastes	11,580	.....	\$0 8802	49,190 11	.....	.....
Hyde Park..... (17,991)	(Store refuse and paper	964	.....	.....	.....	.....	.....	Boston Development and Sanitary Company. †
	(Mixed refuse, principally ashes (no kitchen wastes)	4,921	.....	Av. \$1 3908	\$84,083 58	.....	0 3355	Inland dumps.
291,265	(Garbage, principally kitchen wastes	1,600	.....	1 2078	1,932 57	.....	.....	*
	Totals .....	.....	149,520	Av. \$1 1042	.....	\$165,093 92	\$0 5668	

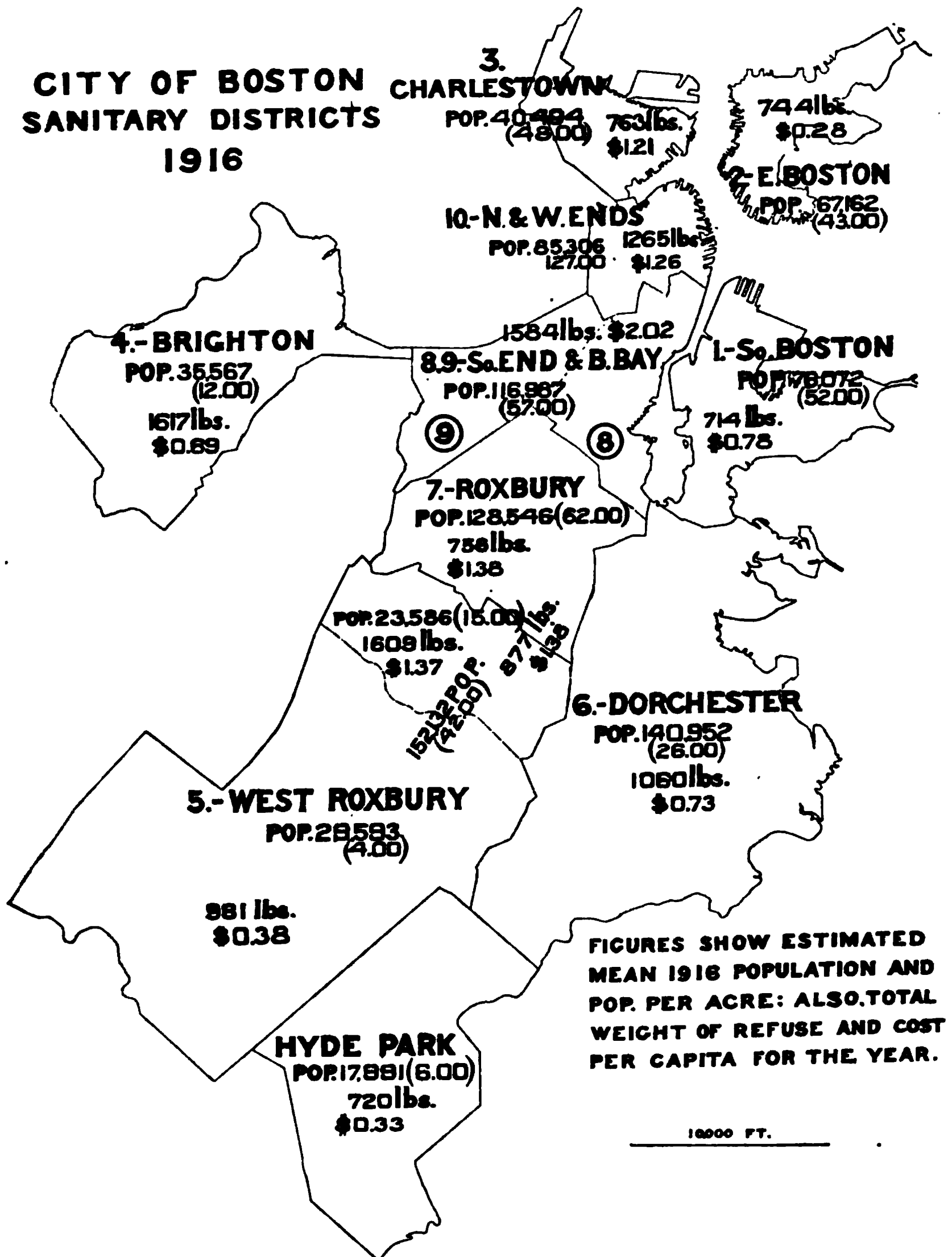
* Removed beyond city limits and presumably fed to swine.

† Contract for disposal.

Total, as above	\$165,093 92
Add total of day labor table (between pages 408 and 409)	804,344 94
Net amount of appropriation	<u>\$969,438 86</u>

Number of Carts, Wagons and Sleds Used by the Sanitary Service for the Collection of House Dirt and Ashes, Waste, Rubbish and Garbage During the Year Ending January 31, 1917.

DISTRICTS.	ASH CARTS.			OFFAL WAGONS.				PAPER.		Sleds.	Pungs.	Contractors.
	WOOD.			IRON.		WOOD.		Carts.	Wagons.			
	Autos.	Single.	Double.	Single.	Double.	Single.	Double.					
1. South Boston.....	1	16	.....	4	.....	3	1	1	1	16	.....
3. Charlestown.....	1	14	.....	5	.....	.....	.....	.....	1	9	.....
7. Roxbury.....	1	42	7	15	2	2	5	2	2	35	14	
8. Repair Shops.....	.....	20	1	11	.....	.....	.....	1	1	.....	.....
8 and 9. South End.....	.....	29	.....	14	.....	.....	.....	6	9	34	2	
10. North and West Ends.....	.....	40	.....	13	.....	.....	.....	5	4	5	.....
Total in Sanitary Service.....	3	161	8	62	2	5	6	15	18	99	16	
IN USE BY CONTRACTORS.												
2. East Boston.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	Berry & McCarthy.
2. East Boston.....	.....	.....	.....	.....	3	.....	1	.....	.....	.....	.....	H. H. Cannon.
4. Brighton.....	.....	4	10	.....	.....	.....	.....	.....	1	.....	.....	J. McGreevey.
4. Brighton.....	.....	.....	.....	.....	1	.....	10	.....	.....	.....	.....	J. A. & W. Janse.
5. West Roxbury.....	.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	J. J. Moore.
5. West Roxbury.....	.....	.....	.....	.....	.....	.....	6	.....	.....	.....	.....	W. Griffin.
6. Dorchester.....	.....	.....	22	.....	.....	.....	.....	.....	.....	.....	.....	F. Gore Company.
6. Dorchester.....	1	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	M. H. Loonie.
11. Hyde Park.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	J. J. Moore.
11. Hyde Park.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	C. Tate.
Totals.....	4	165	50	62	13	7	28	15	19	99	16	



HIGHWAY DIVISION — STREET CLEANING AND OILING SERVICE.

Items of Expenditures for the Year. Street Cleaning Branch.

General administration		\$25,573 00
Salary of division engineer (in part),	\$682 24	
Salary of supervisor (in part)	1,431 00	
Salary of medical inspector (in part),	491 02	
Salary of general foreman	239 75	
Medical service	86 50	
Salary of chief veterinarian (in part),	820 00	
Stationery	178 43	
Postage	112 21	
Printing	875 12	
Advertising	7 50	
Telephone service	623 72	
Office items and incidentals	205 59	
Automobile repairs and maintenance, supervisor	1,732 31	
Supplies	\$66 84	
Garage rent	180 00	
Gasolene, oil, etc.	305 42	
Tubes, tires, cases, new	36 24	
Tubes, tires, cases, repair of	25 60	
Engine and body repairs	386 47	
Registration	20 00	
Wages of chauffeur,	1,092 00	
Total	\$2,112 57	
Less amount charged to Street Watering and Oiling	380 26	
Annuity, chapter 569, Acts of 1898,	300 00	
Pensions, retired veterans	5,952 54	
Pensions, retired laborers	10,576 47	
Uniforms	1,258 60	
Carried forward	\$25,573 00	\$25,573 00

Brought forward	\$25,573 00	\$25,573 00
General expenses, other than general administra- tion		104,669 11
Wages of stablemen	\$28,365 65	
Wages of yardmen	5,220 45	
Wages of watchmen	3,731 00	
Wages of foremen's drivers	538 15	
Wages of yard clerks and messengers,	2,966 75	
Veterinary services and medicines	376 80	
Hay and straw	20,681 21	
Grain	18,721 96	
Wagons and carriages, repairs	678 46	
Harnesses, new and repairs	2,398 31	
Horseshoeing	4,731 54	
Horses, new	2,837 50	
Horses, clipping of	56 94	
Horses, outside care and board of	1,706 25	
Stables and yards, rent of	2,670 00	
Stables and yards, taxes on	1,101 12	
Stables and yards, blankets, cover- ings, brushes, oils, greases, pol- ishes, furnishings	1,911 97	
Stable and yards, buildings, repairs,	4,076 11	
Electric light, stable and yards	460 66	
Gas light, stable and yards	18 23	
Fuel, stable and yards	305 20	
Automobile repairs and maintenance,	1,114 85	

FOREMEN.	Nos. 100137 8389	No. 6043	No. 6042
Cost.....	\$361 60		
Registration.....	15 00	\$10 00	\$10 00
Supplies.....	35 90	1 00	29 00
Parts.....	1 40	23 33	120 46
Labor.....	6 25	24 20	64 95
Gasolene,oils, greases, etc.....	21 80	87 28	232 16
Tubes, tires, cases, new.....	25 55	30 67	4 40
Tubes, tires, cases, repair of.....		4 15	5 75
Totals.....	\$467 50	\$180 63	\$466 72

Operating expenses		420,468 05
District foremen, salaries of	\$17,950 40	
Subforemen, wages of, on paved streets, gutters, crossings, snow work, patrolling, etc.	28,496 60	
Laborers, wages of, on paved streets, gutters, crossings, snow work, patrolling, etc	248,885 42	
Carried forward	\$425,574 53	\$550,710 16

Brought forward	\$425,574 53	\$550,710 16
Hired teams on paved streets, gutters, crossings, snow work, patrolling, etc.	49,274 19	
Holiday, pay allowed	24,640 05	
Vacations	13,115 35	
Pay allowed injured employees	2,894 30	
Military roll (service at Mexican border)	345 00	
Dumps, labor on	3,087 44	
Dumps, rent of	3,673 32	
Snow license (part cost)	500 00	
Flushing machines, new and repairs,	2,599 17	
Sweeping machines, repairs	1,769 26	
Water carts, repairs	1,440 53	
Cart repairs	5,953 91	
Snow plows, road machines, etc., new and repairs	1,507 85	
Push brooms, team brooms, handles, etc.	1,445 34	
Hoes, shovels, picks, etc.	1,384 92	
Machine brooms	3,879 00	
Push carts and barrels	497 76	
Refuse boxes	356 44	
Sand (used on slippery streets)	682 13	
Hose for flushing machines	563 96	
Hose for watering carts	102 42	
Calcium chloride for watering streets,	20 48	
Tools, etc., repairs	548 29	
Automobile, repairs and maintenance,	4,854 52	

	No. 1431.
Garage rent.....	\$360 00
Gasolene, oils, greases, etc.....	1,127 20
Engine and body repairs.....	794 20
Tubes, tires, cases, new.....	437 20
Supplies.....	16 11
Registration.....	2 00
Chauffeurs.....	1,542 00
Total.....	\$4,278 71

Proportionate share of truck No.
1432 \$575 81

Total expenditure	<u>\$550,710 16</u>	<u>\$550,710 16</u>
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Street Watering and Oiling Branch.

General administration		\$4,360 66
Salary of division engineer (in part),	\$149 76	
Salary of supervisor (in part)	314 12	
Salary of general foreman	1,795 04	
Carried forward	<u>\$2,258 92</u>	<u>\$4,360 66</u>

PUBLIC WORKS DEPARTMENT.

415

<i>Brought forward</i>	\$2,258 92	\$4,360 66
Salary of medical inspector (in part),	9 00	
Salary of chief veterinarian (in part),	180 00	
Stationery	44 61	
Printing	97 82	
Postage	28 05	
Advertising	9 50	
Telephone service	46 15	
Traveling expense	1 25	
Analyses of oils	170 00	
Incidentals	42 00	
Proportionate share of supervisor's automobile	380 26	
Automobile repairs and maintenance,	1,090 40	

GENERAL FOREMAN.	No. 6382.
Garage rent.....	\$180 00
Gasolene, oils, greases, etc.....	448 86
Engine and body repairs.....	306 54
Tubes, tires, cases, new.....	94 60
Tubes, tires, cases, repairs.....	23 27
Supplies.....	22 13
Registration.....	15 00
Total.....	\$1,090 40

Uniforms	2 70	
General expenses other than general administration		2,230 62
Wages of stablemen, watchmen and yardmen	\$511 08	
Veterinary services and medicines	6 95	
Hay, straw and grain	616 40	
Wagons and carriages, repairs	3 96	
Horseshoeing	127 40	
Yard and stables, blankets, covers, brushes, oils, greases, polishes, furnishings	177 70	
Yard and stables, buildings, repairs,	207 53	
Light and fuel, yard and stables	117 36	
Bicycles, repairs	4 00	
Chief inspector, automobile repairs and maintenance	458 24	

CHIEF INSPECTOR.	No. 6381.
Registration.....	\$10 00
Supplies.....	20 05
Gasolene, oils, greases, etc.....	265 03
Engine and body repairs.....	91 57
Tubes, tires, cases, new.....	59 74
Tubes, tires, cases, repairs.....	11 85
Total.....	\$458 24

<i>Carried forward</i>	\$6,591 28	\$6,591 28
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Brought forward	\$6,591 28	\$6,591 28
Operating expenses		114,859 40
Inspectors, wages, water distribu- tion	\$6,756 32	
Inspectors, wages, oil distribution	886 75	
Chief inspectors	1,092 00	
Laborers, wages, water distribu- tion	343 01	
Laborers, wages, oil distribution	376 84	
Laborers, wages, calcium chloride	108 52	
Holidays, pay allowed	69 48	
Vacation	167 50	
Hired teams, water distribution	36,313 86	
Hired teams, oil distribution	2,597 14	
Hired teams, calcium chloride	215 21	
Tools	24 50	
Standpipes, repairs and mainte- nance	1,241 80	
Calcium chloride	819 52	
Road oil	59,049 61	
Sand, labor spreading	6 38	
Oil and water carts, repairs	320 12	
Rent, car sidings	130 00	
Gas pump and repairs	487 13	
Freights and demurrage	1,036 39	
Automobiles, repairs and mainte- nance	2,817 32	

	No. 1432.	No. 1433.
Garage rent	\$330 00	
Gasolene, oils, greases, etc.	825 35	\$18 47
Engine and body repairs	618 91	75 49
Tubes, tires, cases, new	346 93	
Tubes, tires, cases, repairs	75	
Supplies	16 85	4 13
Registration	2 00	
Chauffeur and operator	1,154 25	
Totals	\$3,295 04	\$98 09

Less amount charged to Street Cleaning	\$575 81	
Total	\$121,450 68	\$121,450 68

DISTRIBUTION OF EXPENDITURES.

Removing snow	\$108,371 16		
Snow work on crossings and gutters	13,439 72		
		\$121,810 88	
Flushing streets		45,497 40	
Street patrolling by teams	\$18,786 85		
Street patrolling by push carts	85,116 22		
Cleaning of subway passage	1,131 75		
Collection of refuse boxes	4,510 23		
		109,545 05	
Cleaning of paved streets	\$198,975 80		
Cleaning of macadam gutters	47,985 48		
Cleaning of public alleys	789 47		
Cleaning of private alleys (infantile paralysis)	6,082 28		
		253,833 03	
Sanding of slippery streets		1,593 56	
		\$532,279 92	
Purchase of new horses		\$2,837 50	
Work performed for Sanitary Service		15,245 72	
Work performed for Sewer Service		347 02	
		18,430 24	
Total expenditures, Street Cleaning Branch		\$550,710 16	
Oiling of public streets and ways		\$71,672 36	
Watering of public streets and ways		49,778 32	
Total expenditures, Street Watering and Oiling Branch,		121,450 68	
Total expenditures, Street Cleaning and Oiling Service,		<u>\$672,160 84</u>	

Summary.

ITEMS.	STREET CLEANING BRANCH.			STREET OILING AND WATERING BRANCH.		
	1914-1915.	1915-1916.	1916-1917.	1914-1915.	1915-1916.	1916-1917.
Labor.....	\$390,313 34	\$410,799 55	\$403,167 02	\$26,434 28	\$28,311 16	\$12,742 01
Teaming.....	18,565 51	18,047 77	49,274 19	53,814 45	52,406 23	39,126 21
Supplies and repairs.....	111,971 18	122,041 27	98,268 95	98,484 86	59,027 58	69,582 46
Totals.....	\$520,850 03	\$550,888 59	\$550,710 16	\$178,733 59	\$139,744 97	\$121,450 68

SNOW WORK.

Cost of Snow Work and Volume of Snow Removed.

DISTRICTS.	Snow Work on Cross- ings and Gutters. Total Cost.	Snow Removal. Total Cost. *	Total Cost. *	Single Loads of Snow Removed. †	Cubic Yards Removed. †	Cost per Cubic Yard Removed. *
1. South Boston.....	\$2,265 03	\$3,197 73	\$5,462 76	4,554	11,840.4	\$0 27
2. East Boston.....	73 08	803 71	876 79	510	1,326	0 606
3. Charlestown.....	1,541 87	787 14	2,329 01	700	1,820	0 432
6. Dorchester.....	376 88	425 10	801 98	218	566.8	0 767
7. Roxbury.....	2,551 90	883 20	3,435 10	358	930.8	0 948
8. Uptown.....	1,604 32	940 91	2,545 23	655	1,703	0 552
8. Downtown....	539 25	36,813 61	37,352 86	30,996	80,589.6	0 456
9. Back Bay.....	214 09	3,189 78	3,403 87	2,190	5,694	0 56
10. North and West Ends....	493 03	34,055 18	34,548 21	30,506	79,315.6	0 429
11. Patrol System.....	3,780 27	27,274 80	31,055 07	12,766	33,191.6	0 821
Totals.....	\$13,439 72	\$108,371 16	\$121,810 88	83,453	216,977.8	.....
Average.....	.....	.....	.....	.....	.....	\$0 499

* Includes Sundays paid time and one half, holidays double time.
† Street Cleaning Branch loads, 2.6 cubic yards.

Summary.

ITEMS.	Cost of Inspection, Labor and Teaming.	Cost of all Other Charges.	Total Cost.	AMOUNT OF SNOW REMOVED.		Cost per Load Removed.	Cost per Cubic Yard Removed.
				Loads.	Cubic Yards.		
Snow removal.....	\$78,234 51	\$30,136 65	\$108,371 16	83,453	216,977.8	\$1.298	\$0.499
Snow crossings and gut- ters.....	11,607 85	1,831 87	13,439 72	.....	.....	.....	.....
Totals.....	\$89,842 36	\$31,968 52	\$121,810 88				

Flushing.

Cost of Supervision.	Cost of Labor and Teams.	Cost of Repairs and Tools.	Cost of All Other Charges.	* Total Cost.	Square Yards Flushed Once.	Total Gallons of Water Used.	Gallons of Water Used per Square Yard.	Cost per Thousand Square Yards Flushed Once.
\$2,417 05	\$27,583 47	\$3,399 26	\$12,097 62	\$45,497 40	89,693,315	20,275,532	.226	\$0.5072

* Cost of water not included.

Cost of Maintaining Horses on a Basis of 365 Days Per Year.

DISTRICTS.	SOUTH BOSTON.		EAST BOSTON.		CHARLESTOWN.		DORCHESTER.		ROXBURY.		SOUTH STABLE.		WEST STABLE.		TOTAL.	
AVERAGE NUMBER HORSES KEPT.	20.64		14.76		12.3		14.86		22.00		61.13		32.8		178.49	
ITEMS.	TOTAL COST.		TOTAL COST.		TOTAL COST.		TOTAL COST.		TOTAL COST.		TOTAL COST.		TOTAL COST.		TOTAL COST.	
	Per Year.		Per Year.		Per Year.		Per Year.		Per Year.		Per Year.		Per Year.		Per Year.	
	Per Horse per Day.		Per Horse per Day.		Per Horse per Day.		Per Horse per Day.		Per Horse per Day.		Per Horse per Day.		Per Horse per Day.		Per Horse per Day.	
Labor.....	\$4,303 76	\$0 5711	\$2,918 26	\$0 5418	\$1,793 38	\$0 4001	\$3,346 50	\$0 617	\$3,389 51	\$0 421	\$11,396 11	\$0 5107	\$5,165 00	\$0 4314	\$32,312 52	\$0 4959
Hay and grain.....	4,525 15	0 6005	2,584 50	0 4716	1,841 33	0 4108	2,613 14	0 4818	4,636 94	0 5759	15,637 75	0 7008	8,200 76	0 6848	40,019 57	0 6141
Fuel, light and rent..	1,047 95	0 1391	2,020 49	0 3751	96 91	0 0216	93 34	0 0172	211 74	0 0262	124 70	0 0055	.....	.....	3,595 13	0 0551
Yard and stable repairs.....	76 62	0 0101	50 .....	.....	122 67	0 0275	2,878 31	0 5307	173 78	0 0215	434 25	0 0194	184 13	0 0153	3,870 26	0 0504
Yard and stable furnishings.....	97 25	0 0126	250 19	0 0464	64 20	0 0143	120 65	0 0222	195 56	0 0282	758 10	0 034	410 95	0 343	1,896 90	0 0291
Veterinary services and medicines.....	146 00	0 0193	90 50	0 0168	72 00	0 016	.....	.....	4 52	0 0005	15 18	0 0007	55 56	0 0046	383 76	0 0058
Horsehoesing.....	851 26	0 1129	688 45	0 1278	611 95	0 1365	500 20	0 0922	682 47	0 0847	* 2,867 50	0 1285	* 1,216 35	0 1016	7,418 18	0 1138
Outside care and board.....	.....	.....	.....	.....	.....	.....	1,706 25	0 3146	.....	.....	.....	.....	.....	.....	1,706 25	0 0262
Miscellaneous.....	3 00	0 0003	.....	.....	.....	.....	.....	.....	.....	.....	54 00	0 0024	.....	.....	57 00	0 0009
Totals.....	\$11,050 99	\$1 466	\$8,532 89	\$1 5842	\$4,602 44	\$1 0268	\$11,258 39	\$2 076	\$9,294 52	\$1 158	\$31,287 59	\$1 402	\$15,232 75	\$1 2721	\$91,259 57	\$1 4003

* Work done by Sanitary Service — not paid for by Street Cleaning Service.

Push Cart, Team and Box Patrols and Collections.

Districts.	TEAM PATROL.					PUSH CART COLLECTION.							
	Inspection, Labor and Teaming.	All Other Charges.	Total Cost.	Number of Loads Collected.	Number of Cubic Yards Collected.	Cost per Cubic Yard.	Inspection, Labor and Teaming.	All Other Charges.	Total Cost.	Barrels Collected.	Cubic Yards Collected.	Cost per Barrel Collected.	Cost per Cubic Yard Collected.
1.....	\$226 22	\$117 82	\$344 04	68½	137	\$2 511	\$2,649 91	\$362 62	\$3,012 33	5,418	602	\$0 555	\$5 003
2.....	176 34	181 51	357 85	71	142	2 52	1,532 46	157 53	1,689 99	2,590	288	0 652	5 868
3.....	251 47	89 31	341 28	77½	155	2 201	1,002 91	88 53	1,091 44	1,384	154	0 788	7 087
6.....	357 77	179 65	537 42	81	162	3 311	59 98	15 61	75 59	163	19	0 463	3 978
7.....	248 62	225 79	474 41	167	334	1 42	7,438 32	951 84	8,390 16	15,884	1,765	0 528	4 753
8. Uptown.....	1,161 76	541 92	1,703 68	387	774	2 201	.....	.....	.....	.....	.....	.....	.....
8. Downtown....	92 96	27 06	120 02	46	92	1 304	.....	.....	.....	.....	.....	.....	.....
9.....	82 66	143 71	226 37	45	90	2 515	.....	.....	.....	.....	.....	.....	.....
10.....	60 46	21 20	81 66	37	74	1 103	.....	.....	.....	.....	.....	.....	.....
11.....	8,996 05	5,604 07	14,600 12	3,318	6,636	2 20	64,019 39	6,837 32	70,856 71	81,812	9,090	0 866	7 795
Totals.....	\$11,654 31	\$7,132 54	\$18,786 85	4,298	8,596	.....	\$76,702 77	\$8,413 45	\$85,116 22	107,251	11,917	.....	.....
Averages.....	.....	.....	.....	.....	.....	\$2 185	.....	.....	.....	.....	.....	\$0 793	\$7 142

Subway patrol	.	.	.	.	.	.	.	.	.	.	\$1,131 75
Refuse box collection	.	.	.	.	.	.	.	.	.	.	4,510 23
Sanding streets	.	.	.	.	.	.	.	.	.	.	1,593 56
Number of loads of sand spread	.	.	.	.	.	.	.	.	.	.	560
Number of refuse boxes collected	.	.	.	.	.	.	.	.	.	.	49,374
Capacity of barrel:											
Metal	.	.	.	.	.	.	.	.	.	.	3 cubic feet

Miles and Areas of Streets Cared for, 1916-17.

DISTRICT No.	Location.	MILES OF STREET CARED FOR.		SQUARE YARDS CARED FOR.		Total Square Yards.
		Paved.	Macadam.	Roadway Paved.	Macadam. 9-foot Gutters.	
1.....	South Boston.....	23.74	30.08	489,974	158,856	648,830
2.....	East Boston.....	6.34	23.28	142,984	122,969	265,953
3....	Charlestown.....	13.06	10.88	302,056	57,486	359,542
6.....	Dorchester (part).....	9.46	84.50	197,712	446,172	643,884
7.....	Roxbury.....	20.09	19.67	465,278	103,905	569,183
8.....	South End (uptown).....	15.79	11.96	343,899	63,171	407,070
8.....	South End (downtown)...	25.40	.92	502,601	4,903	507,504
9.....	Back Bay.....	15.74	20.37	285,067	107,575	392,642
10.....	North and West Ends....	19.79	.86	362,362	4,562	366,924
Totals.....	.....	149.41	202.52	3,091,933	1,069,599	4,161,532

OILING OF MACADAM STREETS.

Showing Cost of Labor, Teaming, Oil, etc., Including Superintendence.

Districts.	Number.	Total Area Oiled (Square Yards).	Equivalent Mileage, 30-foot Roadway.	Area Covered Once (Square Yards).	DATES OF OILING.		Average Number of Times Dis- trict Treated.	Total Cost.	COST PER SQUARE YARD.		Gallons Used.	Gallons per Square Yard of Oiled Area.	Total Water Used (Gallons).
					First.	Last.			Covered Once.	Entire Season.			
South Boston.....	1	501,225	28.4786	1,319,323	1916. May 2	1916. Sept. 25	2.6321	\$6,527 65	\$0 0049	\$0 0130	80,679	.1610	90,942
East Boston.....	2	392,394	22.2951	733,074	May 8	Sept. 20	1.8681	5,733 87	0074	0139	70,356	.1793	.....
Charlestown.....	3	127,645	7.2525	229,290	May 3	Aug. 7	1.7963	1,925 24	0084	0151	22,291	.1747	.....
Brighton.....	4	682,033	38.7518	1,316,386	May 13	Oct. 27	1.9300	6,336 93	0048	0093	80,103	.1174	102,147
West Roxbury.....	5	1,008,349	57.2925	1,927,198	May 5	Oct. 5	1.9112	10,077 09	0052	0100	127,803	.1267	216,996
Dorchester.....	6-9	1,379,070	78.3562	2,544,978	May 2	Oct. 4	1.8454	15,049 90	0059	0109	189,493	.1374	211,788
Roxbury.....	7	971,778	55.2146	1,761,048	May 1	Oct. 4	1.8122	12,776 64	0073	0131	149,988	.1543	147,819
South End, Back Bay and part of Roxbury.....	8-10	706,671	40.1517	1,759,048	May 2	Oct. 19	2.4892	9,155 50	0052	0133	112,493	.1589	194,265
Hyde Park.....	11	498,971	28.3506	840,729	May 9	Oct. 3	1.6848	4,053 20	0048	0093	45,023	.0902	83,010
Totals.....	.....	6,268,136	356.1436	12,431,074	.....	.....	17.9693	\$71,636 03	\$0 0539	\$0 1079	878,229	1.2999	1,046,967
Average.....	.....	.....	.....	.....	.....	.....	1.9832	.....	\$0 0057	\$0 0114	.....	.1401	.....

NOTE.— Average cost of oil per gallon, 1916, \$0.0672.
NOTE.— Average cost of oil per gallon, 1915, \$0.0410.
NOTE.— Cost of 1 square yard for season, \$0.01142. Cost of water not included.

AREA WATERED, 1916.
Total Cost Per Square Yard and Amount of Water Used.

Districts.	Total Square Yards Watered.	EQUIVA- LENT Mileage, 30-foot Roadway.	DATES OF WATERING.		Number of Days One or More Carts Out.	Total Cost.	Cost per Square Yard.	Cart- days Worked.	Loads Spread During Season.	Square Yards Covered Once.	Total Gallons of Water Used.
			First.	Last.							
South Boston.....	488,643	27.7632	April 8	Nov. 13	150	\$4,274 56	\$0 0087	682	10,230	42,966,000	6,138,000
East Boston.....	135,836	7.7178	May 1	Oct. 22	114	1,324 66	0097	41 128	130.5 1,928	913,500 8,097,600	104,400 1,156,800
Charlestown.....	240,732	13.6779	April 17	Nov. 11	128	2,259 66	0093	328	4,920	20,664,000	2,952,000
Brighton.....	84,217	4.7850	April 6	Nov. 12	145	2,789 03	0331	322	4,830	20,286,000	2,898,000
West Roxbury.....	159,571	9.0665	April 3	Nov. 12	145	3,183 45	0199	378	5,670	23,814,000	3,402,000
Dorchester.....	234,310	13.3130	April 2	Nov. 12	151	5,547 72	0236	31 704	90.5 1,0567	633,500 44,381,400	72,400 6,340,200
Roxbury.....	164,433	9.3996	April 2	Nov. 13	156	4,927 51	0299	5 546	145 8,194	1,015,000 34,414,800	116,000 4,916,400
South End and part of Roxbury.	626,920	35.6204	April 1	Jan. 20	203	12,216 02	0194	23 466	677 7,003	4,739,000 29,412,600	641,600 4,201,800
City Proper.....	507,882	28.8569	Mar. 28	Jan. 20	208	11,818 16	0232	381 975	11,074 14,631	77,518,000 61,450,200	8,869,200 8,778,600
Hyde Park.....	54,900	3.1193	April 16	Nov. 14	137	1,401 22	0255	246 138	7,160.75 2,070	50,125,250 8,694,000	5,728,600 1,242,000
Totals.....	2,697,444	153.32			1,537	\$49,741 99	2023	4,969 684	70,043 19,877	294,180,600 134,944,250	42,025,800 15,422,200
Average.....							0184				

NOTE. — Cost of one square yard for season, \$0.0184; cost of water not included.
NOTE. — Work done by auto trucks appears in italics.

SEWER SERVICE.

The work of the Service is carried on under chapters 28 and 40, revised ordinances 1914, and the following statutes:

Chapter 426 — 1897, as amended by 450 — 1899 and 268 — 1903.

Chapter 383 — 1903, as amended by 464 — 1907.

Chapter 550 — 1907.

Chapter 204 — 1908.

Chapter 514 — 1908.

Chapter 348 — 1912.

THE DUTIES OF THE SEWER SERVICE.

1. Preparations of plans for sewerage works.
2. Construction and maintenance of all drainage works.
3. Investigation of complaints in regard to defective drainage.
4. The granting of permits for sewer construction.
5. The preparation of plans for the assessment of the cost of sewer construction.
6. The examination of the plans of other corporations proposing to construct works in public streets with reference to their probable interference with sewerage works.

Total number of employees on pay roll January 31, 1916	386
Total number of employees on pay roll January 31, 1917	379
Total amount of weekly pay roll January 31, 1916	\$8,013 27
Total amount of weekly pay roll January 31, 1917	\$7,943 61
Total amount of monthly pay rolls January 31, 1916	\$361 11
Total amount of monthly pay rolls January 31, 1917	\$508 33
Total amount of monthly pension roll January 31, 1916:	
Veterans	\$668 13
Laborers	\$689 63

Total amount of monthly pension roll January 31,
1917:

Veterans	\$685 55
Laborers	\$697 16

Average weekly pay roll, including monthly roll
and exclusive of pension roll, for fiscal year . \$7,813 02

Charged as follows:

Maintenance	* \$4,108 65
Sewerage works	\$2,298 17
Separate systems of drainage	\$1,419 91

Average number of men employed 383

Number of men on pension roll January 31, 1916:

Veterans	15
Laborers	23

Number of men on pension roll January 31, 1917:

Veterans	15
Laborers	23

Average number of horses maintained by the
service during the year 29

Rate of wages per day to common laborers . . . \$2 50

* Includes amount charged to Bridge Service.....	\$7 50
Paving Service.....	2,165 78
Street Cleaning and Oiling Service.....	714 63
Water Service.....	107 28
High Pressure Fire Service.....	1,067 69
Strandway.....	97 50
Refuse Transfer Station.....	20 00

\$4,180 38

Financial Statement from February 1, 1916, to January 31, 1917.

OBJECT.	Balances on Hand Feb. 1, 1916.	Appropriations, Loans and Transfers.	Transfers to.	Transfers from.	Total Credits.	Expenditures During the Year.	Balances on Hand Jan. 31, 1916.
Sewer Service.....	.....	\$323,625 20	\$60 00	.....	\$323,685 20	\$322,199 03	\$1,486 17
Sewerage Works.....	\$233,535 53	600,000 00	.....	.....	833,535 53	560,497 46	273,038 07
Separate systems of drainage...	164,793 21	400,000 00	.....	.....	564,793 21	490,576 72	74,216 49
Totals.....	\$398,328 74	\$1,323,625 20	\$60 00	.....	\$1,722,013 94	\$1,373,273 21	\$348,740 73

MAINTENANCE EXPENDITURES, FEBRUARY 1, 1916, TO
JANUARY 31, 1917.

SEWER SERVICE.

Improved Sewerage.

Pumping Station, Calf Pasture, inside	\$51,723 22	
Pumping Station, Calf Pasture, outside	12,866 19	
Pumping Station, Calf Pasture, engines	24,260 03	
Pumping Station, Calf Pasture, boilers	17,133 35	
Pumping Station, Union Park street	5,278 67	
Pumping Station, Summer street	1,077 32	
Pumping Station, Hyde Park	540 00	
		<hr/>
		\$112,878 78
Moon Island		14,348 96
Main and intercepting sewers		23,905 99
		<hr/>
		\$151,133 73

Stony Brook.

Maintenance		1,945 55
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Miscellaneous Maintenance Charges.

Cleaning catch-basins		38,556 88
Yards and lockers		510 32
Employed at yards		14,736 73
Horses, carts, harnesses, etc.	\$11,873 96	
Teaming	9,339 88	
		<hr/>
	\$21,213 84	
Less amount earned by service teams	18,257 02	
		<hr/>
		2,956 82
Automobiles		4,193 88
Cleaning sewers		27,884 20
Office salaries		12,183 11
Office expenses		2,706 20
Culverts, repairing and maintaining	\$58 73	
Repairing department buildings	519 45	
Repairing catch-basins, South Boston	1,968 77	
Repairing catch-basins, East Boston	1,514 59	
Repairing catch-basins, Charlestown	1,163 86	
Repairing catch-basins, Brighton	1,337 54	
Repairing catch-basins, West Roxbury	1,212 18	
Repairing catch-basins, Dorchester	2,951 92	
Repairing catch-basins, Hyde Park	67 65	
Repairing catch-basins, Roxbury	2,078 61	
Repairing catch-basins, city proper	2,320 10	
Repairing sewers, South Boston	939 72	
Repairing sewers, East Boston	876 60	
Repairing sewers, Charlestown	283 38	
Repairing sewers, Brighton	800 82	
Repairing sewers, West Roxbury	2,100 53	
Repairing sewers, Dorchester	2,448 44	
Repairing sewers, Hyde Park	142 93	
Repairing sewers, Roxbury	1,747 67	
		<hr/>
Carried forward	\$24,533 49	\$256,807 42

PUBLIC WORKS DEPARTMENT.

429

<i>Brought forward</i>	\$24,533 49	\$256,807 42
Repairing sewers, city proper	1,618 47	
		26,151 96
Pension roll (veterans)		8,020 71
Pension roll (laborers)		8,101 97
Annuities		751 00
Fuel and oil		1,763 47
Hardware, tools, etc.		1,548 39
Engines and boilers		143 64
Sundries and miscellaneous charges		13,077 13
Damages, claims and medical attendance		190 00
Telephones		327 72
House connection		8,965 30
Rubber goods		376 36
Gatehouse, Fenway		412 95
Stock		7,865 79
		<u>\$334,503 81</u>

Credit.

Stock transferred and used on construction	\$10,937 03	
Rubber goods transferred and used on construction	124 17	
Fuel and oil transferred and used on construction	1,104 81	
Hardware, tools, etc., transferred and used on construction	138 77	
		<u>12,304 78</u>
		<u>\$322,199 03</u>

Charges to Various Parties for Property Sold and for Work Done and Material Furnished.

T. P. McMorow	\$10 00
Cemetery Department	1 83
J. Jopin	25 00
Metropolitan Water and Sewerage Board	13,831 25
P. J. Brophy	10 00
Bay State Railway Company	84
Supply Department	19 19
High Pressure Fire Service, Public Works Department	13 70
Children's Institution	178 85
Water Service, Public Works Department	273 56
City Hospital	60 04
Boston Elevated Railway	142 60
Walworth Manufacturing Company	674 28
John McCourt & Co.	74 00
Mr. Rockman	20 50
Edison Electric Illuminating Company	55 67
Quincy Market Cold Storage Company	509 34
Employers' Liability Assurance Corporation, Limited	79 75
Martin Maguire	17 00
M. Russo Son Company	25 00
Roxbury Iron and Metal Company	248 35
Standard Oil Company	62 40
Boston Juvenile Court	10 00
J. W. Cosden Company	5 00
Boston Low Tension Wire Association	25 00
R. S. Brine Transportation Company	27 85
New England Telephone Company	6 38
Fenway Brewery	5 00
<i>Carried forward</i>	<u>\$16,412 38</u>

<i>Brought forward</i>	\$16,412 38
J. L. Pierce	6 00
Staples Coal Company	30 73
Martin Ryan	90 25
Felton Company	226 63
Boston Wharf Company	266 16
Thomas Rush	43 18
Essex Lumber Company	5 60
	<u>\$17,080 93</u>

*Amounts Collected by City Collector for Sewer Service, February 1, 1916, to
January 31, 1917.*

Boston Transit Commission	\$413 60
Boston Elevated Railway Company	252 27
Edison Electric Illuminating Company	55 67
Public Works Department, Sanitary Service	30 96
Public Works Department, Water Service	205 56
Public Works Department, Bridge Service	44 22
Public Works Department, High Pressure Fire Service	291 64
New England Telephone & Telegraph Company	6 38
Fenway Brewery	5 00
Felton Company	226 63
Bay State Street Railway Company	84
J. Jopin	25 00
Cemetery Department	1 83
J. W. Cosden Company	5 00
Boston Low Tension Wire Company	25 00
Staples Coal Company	30 73
James L. Pierce	6 00
Supply Department	19 19
M. Russo Son	25 00
Quincy Market Cold Storage Company	509 34
Employers' Liability Assurance Corporation, Limited	79 75
Patrick Doyle	10 00
P. J. Brophy	10 00
Metropolitan Water and Sewerage Board	6,770 20
T. P. McMorrow	10 00
Boston Juvenile Court	10 00
Walworth Manufacturing Company	674 28
City Hospital	60 04
Roxbury Iron and Metal Company	248 35
Standard Oil Company	62 40
John McCourt	74 00
M. McGuire	17 00
	<u>\$10,205 88</u>

Highway Division, Sewer Service.— Maintenance Expenditure, Detail, 1916-17.

Accounts.	Total Expendi- ture.	Labor.	Teaming.	Stock.	Contracts.	Miscellaneous.
Automobiles (5).....	\$4,193 88	\$1,618 55	.....	.....	.....	Repairs.....\$996 96 Equipment.....723 12 Supplies.....795 25 Fees.....60 00 \$2,575 33
Cleaning catch-basins.....	38,556 88	12,604 79	\$1,847 99	\$30 85	\$23,869 30	Car fares, etc.....\$66 00 Advertising.....4 20 Dumping.....133 75 203 95
Cleaning sewers.....	27,884 20	14,538 83	5,265 82	62 15	.....	Machine cleaning: Machines.....\$1,361 50 Labor.....6,651 00 Car fares.....4 90 8,017 40
Culverts, repairing and maintaining.....	*58 73	58 73	.....	.....	.....	{Waste, etc.....\$27 53 {Repairs and inspection..116 11 143 64
Engines and boilers.....	14,736 73	14,736 73	.....	.....	.....	{Coal.....\$750 53 {Oil and gasoline.....1,012 94 1,763 47
Employed at yards.....	1,548 39	.....	.....	.....	.....	Hose.....\$570 95 Canvas.....130 14 Hardware, repairs, etc...847 30 1,548 39
Fuel and oil.....	8,965 30	8,481 70	.....	77 10	.....	Repairs.....\$20 42 Car fares, etc.....386 08 406 50
Hardware and tools.....						
House connections.....						

Highway Division, Sewer Service.— Maintenance Expenditure, Detail, 1916-17.— Concluded.

ACCOUNTS.	Total Expendi- ture.	Labor.	Teaming.	Stock.	Contracts.	Miscellaneous.
Horses, carts, harnesses, etc.....	\$11,873 96	\$3,124 34	.....	.....	.....	Fodder..... \$4,665 50 New horses..... 2,005 00 Stable goods..... 97 17 Veterinary services..... 46 50 Repairs, wagons and har- nesses..... 670 61 Shoeing..... 1,101 30 Board..... 121 00 Cleaning..... 27 69 New wagons and har- nesses..... 14 85 \$8,749 62
Maintenance, Stony brook.....	1,945 55	1,768 74	\$176 81	.....	.....	Postage and printing..... \$579 89
Office expenses.....	2,706 20	.....	.....	.....	.....	Stationery supplies..... 1,911 84 Miscellaneous..... 214 47 2,706 20
Office salaries.....	12,183 11	12,183 11	.....	.....	.....	..... 376 36
Rubber goods.....	376 36	.....	.....	.....	.....	{ 80 pairs boots..... 25 coats..... 6 pairs mitts..... 24 hats.....
Stock.....	7,865 79	130 53	140 52	\$6,067 03	\$1,527 71	.....
Teaming.....	9,339 88	9,339 88	.....	.....	.....	.....
Telephones.....	327 72	.....	.....	.....	.....	.....
Yard and locker.....	510 32	90 11	8 96	.....	.....	Gas and electricity..... \$205 64 Miscellaneous..... 205 61 411 25
Back Bay Fens, gatehouses.....	412 95	.....	.....	.....	.....	Electricity..... \$408 05 Car fares..... 4 90 412 95
Damages, claims and medical attendance.....	190 00	.....	.....	.....	.....	Miscellaneous..... \$155 00 Medical attendance..... 35 00 190 00

Miscellaneous, sundries.....	13,077 13	11,802 29	1,004 13	283 00	Repairs, etc.....	\$65 26
Repairing department buildings.....	519 45	106 56		412 89	Repairing streets.....	61 76
Repairing catch-basins, South Boston.....	1,968 77	1,548 56	268 39	151 82	Car fares, etc.....	60 69
“ “ East Boston.....	1,514 59	1,074 43	246 08	194 08		
“ “ Charlestown.....	1,163 86	855 76	148 10	160 00		
“ “ Brighton.....	1,337 54	740 30	425 49	171 75		
“ “ West Roxbury.....	1,212 18	780 69	196 68	234 81		
“ “ Dorchester.....	2,951 92	1,665 16	903 64	383 12		
“ “ Hyde Park.....	67 65	8 35	49 30	10 00		
“ “ Roxbury.....	2,078 61	1,577 22	295 82	205 57		
“ “ city proper.....	2,320 10	1,057 23	729 73	533 14		
Repairing sewers, South Boston.....	939 72	828 66	48 12	62 94		
“ “ East Boston.....	876 60	6 6 35	65 48	204 77		
“ “ Charlestown.....	283 38	182 61	18 29	82 48		
“ “ Brighton.....	800 82	475 15	65 28	260 39		
“ “ West Roxbury.....	2,100 53	1,403 44	165 63	531 46		
“ “ Dorchester.....	2,448 44	1,635 61	326 62	486 21		
“ “ Hyde Park.....	142 93	84 83	11 60	46 50		
“ “ Roxbury.....	1,747 67	1,366 05	113 35	268 27		
“ “ city proper.....	1,618 47	500 86	672 97	444 64		
Pension roll, veterans and laborers.....	16,122 68	16,122 68				
Annuities.....	751 00					751 00
	\$201,627 10	\$122,898 83	\$13,194 80	\$11,364 97		\$28,771 49
Less Credits.						
Teams.....	\$18,257 02					
Stock.....	10,937 03					
Rubber goods.....	124 17	11,933 85		10,937 03		7,690 92
Fuel and oil.....	1,104 81					
Hardware and tools.....	138 77					
Totals.....	\$171,065 30	\$110,964 98	\$13,194 80	\$427 94	\$25,397 01	\$21,080 57

Highway Division, Sewer Service.— Maintenance Expenditure, Detail, 1916-17.

ACCOUNTS.	Total Expendi- ture.	Labor.	Con- tracts.	Teaming.	Waste.	Coal and Wood.	Oil and Gasolene.	Packing.	Valves.	Car Fares.	Stable.	Pipe Fittings and Miscel- laneous.	Towing.	Autos.
Pumping station, inside, Calf Pasture.....	\$51,723 22	\$22,128 49	.....	\$72 50	\$435 00	\$24,934 98	\$301 25	\$131 22	.....	.....	.....	\$3,719 84		
Pumping station, outside, Calf Pasture.....	12,866 19	10,511 03	.....	132 00	.....	.....	.....	.....	.....	.....	\$782 94	699 90	\$335 00	\$405 32
Pumping station, engines, Calf Pasture.....	24,260 03	20,544 65	.....	.....	.....	.....	1,089 75	578 22	\$1,753 50	.....	.....	293 91		
Pumping station, boilers, Calf Pasture.....	17,133 35	15,716 85	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,416 50		
Pumping station, Union Park street.....	5,278 67	3,818 04	.....	25 65	12 75	282 04	.....	8 10	.....	.....	.....	1,132 09		
Pumping station, Summer street.....	1,077 32	317 75	.....	.....	.....	.....	.....	.....	.....	.....	.....	759 57		
Pumping station, Hyde Park..	540 00	293 56	.....	.....	.....	.....	.....	.....	.....	.....	.....	246 44		
Moon Island.....	14,348 96	11,354 33	\$900 00	.....	.....	319 00	10 49	.....	.....	\$569 40	406 89	788 85		
Main and intercepting sewers..	24,108 05	18,788 08	.....	227 46	.....	251 40	28 75	.....	.....	70 20	1,155 48	3,175 34	.....	411 34
	\$151,335 79	\$103,472 78	\$900 00	\$457 61	\$447 75	\$25,787 36	\$1,430 24	\$717 54	\$1,753 50	\$639 60	\$2,345 31	\$12,232 44	\$335 00	\$816 66
<i>Credits.</i>														
Main and intercepting sewers:														
Amount earned by service teams.....	202 06	127 50	.....	.....	.....	.....	.....	.....	.....	.....	74 56			
Totals.....	\$151,133 73	\$103,345 28	\$900 00	\$457 61	\$447 75	\$25,787 36	\$1,430 24	\$717 54	\$1,753 50	\$639 60	\$2,270 75	\$12,232 44	\$335 00	\$816 66

Recapitulation.— Maintenance Detail, 1916-17.

	Improved Sewerage.	Outside Improved Sewerage.	Totals.
Labor.....	\$103,472 78	\$122,898 83	\$226,371 61
Contracts.....	900 00	25,397 01	26,297 01
Teaming, hired and city.....	457 61	13,194 80	13,652 41
Waste.....	447 75	27 53	475 28
Fuel.....	25,787 36	750 53	26,537 89
Oil.....	1,430 24	1,012 94	2,443 18
Packing.....	717 54		717 54
Valves.....	1,753 50		1,753 50
Car fares, traveling expenses, etc.....	639 60	522 57	1,162 17
Horses, etc.....	2,345 31	8,749 62	11,094 93
Towing.....	335 00		335 00
Pipe fittings and miscellaneous.....	12,232 44		12,232 44
Telephone.....		327 72	327 72
Automobiles, repairs and supplies.....	816 66	2,575 33	3,391 99
Stock and miscellaneous supplies.....		26,170 22	26,170 22
	\$151,335 79	\$201,627 10	\$352,962 89
CREDITS.			
Improved Sewerage.			
Labor.....	\$127 50		
Stables.....	74 56		
	202 06		
Outside Improved Sewerage.			
Miscellaneous.....	\$7,690 92		
Labor.....	11,933 85		
Stock.....	10,937 03		
		30,561 80	30,763 86
	\$151,133 73	\$171,065 30	\$322,199 03

WASTE.		PACKING.	
3,700 pounds at 9½ to 13½.....	\$447 75	764½ pounds at 40c. to \$1.80,	\$717 54
COAL.		OIL.	
5,138.730 tons soft coal.....	\$24,934 92	2,833 gallons of engine at.....	17½c. to 23c.
126 tons hard coal.....	852 44	662 gallons cylinder at.....	20c. to 28c.
	\$25,787 36	355 gallons gargoye at.....	35c.
		10% discount.	
		104 gallons sperm at.....	74c. to 84c.
		30 gallons lard at.....	\$1.
		49½ gallons turbine at.....	28c.
		2,938 pounds grease at.....	8½c. to 9c.
		500 gallons kerosene at.....	6c. to 8c.
		324 gallons gasolene at.....	12c. to 26c.
TOWING.			
Boston Tow Boat Company..	\$335 00		

Highway Division, Sewer Service.— Maintenance Expenditure, Detail, 1916-17.— Concluded.

ACCOUNTS.	Total Expendi- ture.	Labor.	Teaming.	Stock.	Contracts.	Miscellaneous.
Horses, carts, harnesses, etc.....	\$11,873 96	\$3,124 34				Fodder..... \$4,665 50 New horses..... 2,005 00 Stable goods..... 97 17 Veterinary services..... 46 50 Repairs, wagons and har- nesses..... 670 61 Shoeing..... 1,101 30 Board..... 121 00 Cleaning..... 27 69 New wagons and har- nesses..... 14 85 \$8,749 62
Maintenance, Stony brook.....	1,945 55	1,768 74	\$176 81			Postage and printing..... \$579 89 Stationery supplies..... 1,911 84 Miscellaneous..... 214 47 2,706 20
Office salaries.....	12,183 11	12,183 11				
Rubber goods.....	376 36					{ 80 pairs boots..... 25 coats..... 6 pairs mitts..... 24 hats..... } 376 36
Stock.....	7,865 79	130 53	140 52	\$6,067 03	\$1,527 71	
Teaming.....	9,339 88	9,339 88				
Telephones.....	327 72		8 96			Gas and electricity..... \$205 64 Miscellaneous..... 205 61 411 25
Yard and locker.....	510 32	90 11				
Back Bay Fens, gatehouses.....	412 95					Electricity..... \$408 05 Car fares..... 4 90 412 95
Damages, claims and medical attendance.....	190 00					Miscellaneous..... \$155 00 Medical attendance..... 35 00 190 00

Miscellaneous, sundries.....	13,077 13	11,602 29	1,004 13	283 00	Repairs, etc..... Repairing streets..... Car fares, etc.....	\$65 26 61 76 60 69
Repairing department buildings.....	519 45	106 56		412 89		
Repairing catch-basins, South Boston.....	1,968 77	1,548 56	268 39	151 82		
“ “ East Boston.....	1,514 59	1,074 43	246 08	194 08		
“ “ Charlestown.....	1,163 86	855 76	148 10	160 00		
“ “ Brighton.....	1,337 54	740 30	425 49	171 75		
“ “ West Roxbury.....	1,212 18	780 69	196 68	234 81		
“ “ Dorchester.....	2,951 92	1,665 16	903 64	383 12		
“ “ Hyde Park.....	67 65	8 35	49 30	10 00		
“ “ Roxbury.....	2,078 61	1,577 22	295 82	205 57		
“ “ city proper.....	2,320 10	1,057 23	729 73	533 14		
Repairing sewers, South Boston.....	939 72	828 66	48 12	62 94		
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“ “ Dorchester.....	2,448 44	1,635 61	326 62	486 21		
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Pension roll, veterans and laborers.....	16,122 68	16,122 68				
Annuities.....	751 00					751 00
	\$201,627 10	\$122,898 83	\$13,194 80	\$11,364 97	\$25,397 01	\$28,771 49
Less Credits.						
Teams.....	\$18,257 02					
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Highway Division, Sewer Service.— Maintenance Expenditure, Detail, 1916-17.

ACCOUNTS.	Total Expendi- ture.	Labor.	Con- tracts.	Teaming.	Waste.	Coal and Wood.	Oil and Gasolene.	Packing.	Valves.	Car Fares.	Stable.	Pipe Fittings and Miscel- laneous.	Towing.	Autos.
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Pumping station, outside, Calf Pasture.....	12,866 19	10,511 03	132 00	\$782 94	699 90	\$335 00	\$405 32
Pumping station, engines, Calf Pasture.....	24,260 03	20,544 65	1,089 75	578 22	\$1,753 50	293 91
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Pumping station, Hyde Park..	540 00	293 56	246 44
Moon Island.....	14,348 96	11,354 33	\$900 00	319 00	10 49	\$569 40	406 89	788 85
Main and intercepting sewers..	24,108 05	18,788 08	227 46	251 40	28 75	70 20	1,155 48	3,175 34	411 34
	\$151,335 79	\$103,472 78	\$900 00	\$457 61	\$447 75	\$25,787 36	\$1,430 24	\$717 54	\$1,753 50	\$639 60	\$2,345 31	\$12,232 44	\$335 00	\$816 66
<i>Credits.</i>														
Main and intercepting sewers:														
Amount earned by service teams.....	202 06	127 50	74 56
Totals.....	\$151,133 73	\$103,345 28	\$900 00	\$457 61	\$447 75	\$25,787 36	\$1,430 24	\$717 54	\$1,753 50	\$639 60	\$2,270 75	\$12,232 44	\$335 00	\$816 66

Recapitulation.— Maintenance Detail, 1916-17.

	Improved Sewerage.	Outside Improved Sewerage.	Totals.
Labor.....	\$103,472 78	\$122,898 83	\$226,371 61
Contracts.....	900 00	25,397 01	26,297 01
Teaming, hired and city.....	457 61	13,194 80	13,652 41
Waste.....	447 75	27 53	475 28
Fuel.....	25,787 36	750 53	26,537 89
Oil.....	1,430 24	1,012 94	2,443 18
Packing.....	717 54	.....	717 54
Valves.....	1,753 50	.....	1,753 50
Car fares, traveling expenses, etc.....	639 60	522 57	1,162 17
Horses, etc.....	2,345 31	8,749 62	11,094 93
Towing.....	335 00	.....	335 00
Pipe fittings and miscellaneous.....	12,232 44	.....	12,232 44
Telephone.....	.....	327 72	327 72
Automobiles, repairs and supplies.....	816 66	2,575 33	3,391 99
Stock and miscellaneous supplies.....	26,170 22	26,170 22
	\$151,335 79	\$201,627 10	\$352,962 89
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Improved Sewerage.			
Labor.....	\$127 50		
Stables.....	74 56		
	202 06		
Outside Improved Sewerage.			
Miscellaneous.....	\$7,690 92		
Labor.....	11,933 85		
Stock.....	10,937 03		
	.....	30,561 80	30,763 86
	\$151,133 73	\$171,065 30	\$322,199 03

WASTE.		PACKING.	
3,700 pounds at 9½ to 13½....	\$447 75	764 7/8 pounds at 40c. to \$1.80,	\$717 54
COAL.		OIL.	
5,138.730 tons soft coal.....	\$24,934 92	2,833 gallons of engine at....	17½c. to 23c.
126 tons hard coal.....	852 44	662 gallons cylinder at....	20c. to 28c.
	\$25,787 36	355 gallons gargoyl at....	35c.
		10% discount.	
TOWING.		104 gallons sperm at.....	74c. to 84c.
Boston Tow Boat Company..	\$335 00	30 gallons lard at.....	\$1.
		49½ gallons turbine at....	28c.
		2,938 pounds grease at.....	8½c. to 9c.
		500 gallons kerosene at....	6c. to 8c.
		324 gallons gasolene at....	12c. to 26c.

Coal at Pumping Station, Calf Pasture.

DATE.	Contractor.	Tons.	PAID IN 1916-17.	
			Per Ton.	Totals.
Jan. 13...	Northern Coal Company.....	146.437	\$4 07	\$596 00
Mar. 1...	Northern Coal Company.....	1,465.799	4 07	5,965 80
May 25...	Metropolitan Coal Company.....	2	5 25	10 50
June 21...	Northern Coal Company.....	1,498.088	5 21	7,805 04
Aug. 25...	Northern Coal Company.....	2,026.406	5 21	10,557 58
	Totals.....	5,138.730	.....	\$24,934 92

Catch-basins Cleaned by Contract, 1916-17.

District.	Contractor.	Start and Finish of Work.	Price per Basin.	Total Cubic Yards Excavated.	Contractor Received.	Total Basins Cleaned.	Total Basins Freed.	Total Drop Inlets Cleaned.	Average Cubic Yards per Basin.	Total Cost of Inspection.	Average Cost to City per Basin.
1. South Boston.....	M. H. Lynch...	{Feb. 1, 1916 Dec. 15, 1916}	\$2 00	2,014.69	\$1,307 00	639	7	15	3.15	\$812 00	\$3 27
2. East Boston.....	J. W. Collins....	{Feb. 7, 1916 Jan. 31, 1917}	2 40	1,692.67	1,342 60	559	.....	1	3.03	371 00	3 06
3. Charlestown.....	J. W. Collins....	{Feb. 1, 1916 Jan. 8, 1917}	2 50	1,644.02	1,284 50	513	.....	2	3.20	381 50	3 24
4. Brighton.....	M. H. Lynch...	{Mar. 6, 1916 Dec. 15, 1916}	2 00	1,470.77	1,186 00	590	.....	6	2.49	598 50	3 01
5. West Roxbury.....	M. H. Lynch...	{Feb. 1, 1916 Jan. 8, 1917}	2 25	1,298.18	1,234 50	546	1	4	2.38	644 00	3 43
6. Dorchester.....	M. H. Lynch...	{Feb. 1, 1916 Jan. 31, 1917}	2 50	4,901.86	4,120 00	1,622	14	37	3.02	1,316 00	3 31
7. South of Dover and Berkeley streets,	M. H. Lynch...	{Feb. 1, 1916 Jan. 31, 1917}	2 75	5,222.63	4,689 00	1,608	81	105	3 25	1,732 50	3 83
8. North of Dover and Berkeley streets,	J. W. Collins....	{Feb. 1, 1916 Jan. 31, 1917}	3 19	6,854.83	7,738 08	2,132	431	75	3.21	1,218 00	3 76
11. Hyde Park.....	M. H. Lynch...	{July 31, 1916 Aug. 19, 1916}	1 00	249.71	119 00	93	12	2	2.68	106 75	2 15

Total catch-basins cleaned.....	9,302	Total costs: Contractors.....	*\$23,020 68
Total catch-basins freed.....	546	Inspection.....	†8,787 25
Total drop inlets cleaned.....	247	Advertising.....	4 20
		Miscellaneous.....	66 00
			<u>\$31,878 13</u>

Total cubic yards material removed, 25,349.36

* Paid in 1917, \$3,360.51.

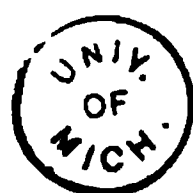
Average cost per basin, \$3.68.

† Includes \$1,500 salary of transitman in charge; \$107 part salary of general foreman of construction; total \$1,607.

Sewerage Works.

Expenditures, February 1, 1916, to January 31, 1917.

ACCOUNTS.	Labor.	Teaming.	Materials.	Miscellaneous.	Paid to Contractors.	Totals.
Engineers' salaries.....	\$56,518 87	.....	.....	.....	.....	\$56,518 87
Engineers' expense.....	1,423 61	\$665 27	.....	\$11,814 65	.....	13,903 53
Pumping stations.....	79 52	.....	\$1,357 99	304 50	\$1,985 80	3,727 81
Sundries.....	.....	.....	2,273 90	86 40	.....	2,360 30
Land-takings and court executions.....	.....	.....	.....	2,528 40	.....	2,528 40
New manholes, entire city.....	1,864 83	439 54	1,063 35	.....	412 03	3,779 75
New catch-basins, South Boston.....	1,323 69	330 74	498 57	.....	234 68	2,387 68
New catch-basins, East Boston.....	494 80	102 00	341 12	.....	106 61	1,044 53
New catch-basins, Charlestown.....	45 78	13 00	6 09	.....	.....	64 87
New catch-basins, Brighton.....	93 00	.....	110 97	.....	565 65	769 62
New catch-basins, West Roxbury.....	3,627 59	446 33	913 18	.....	589 75	5,576 85
New catch-basins, Dorchester.....	1,399 96	116 84	1,532 23	.....	2,982 55	6,031 58
New catch-basins, Hyde Park.....	667 75	107 00	367 62	.....	.....	1,142 37
New catch-basins, Roxbury.....	3,244 33	692 15	950 91	.....	178 58	5,065 97
New catch-basins, city proper.....	3,758 17	570 66	674 64	.....	634 48	5,637 95
Sewers built in entire city.....	49,745 31	529 34	11,685 39	6,649 88	381,347 46	449,957 38
Totals.....	\$124,287 21	\$4,012 87	\$21,775 96	\$21,393 83	\$399,037 59	\$560,497 46



1. The first part of the document is a list of names and addresses, which appears to be a directory or a list of contacts. The names are written in a cursive script, and the addresses are listed below them.

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1. The first step in the process is to identify the problem. This involves gathering information about the situation and understanding the needs of the stakeholders involved.

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100-443887-100

SEWERAGE WORKS LOAN EXPENDITURES FOR 1916 AND 1917.

SOUTH BOSTON.

West First street, from F street to 140 feet easterly,	\$120 97
Kemp street overflow	300 00
East Seventh street, from H street to Sanger street	1,075 48
B and Seventh streets overflow extension from New York, New Haven & Hartford Railroad to a point 130 feet westerly	16,836 41
Strandway and old harbor improvement	1,981 37
	<u>\$20,314 23</u>

Built 339.47 linear feet, 3 manholes, 1 tide-gate chamber.

EAST BOSTON.

Boardman street, from Leyden street to Ashley street	\$2,436 35
Condor street, from Glendon street to East Eagle street	1,383 10
Wordsworth street, from Horace street to Cole-ridge street	295 72
Frankfort street, from Prescott street to Neptune road	37,976 00
Neptune road, from Bennington street to Boston, Revere Beach & Lynn Railroad	
Gove street, from Cottage street to Venice street	2,601 46
Jeffries street, from Marginal street to Sumner street	1,535 15
Sumner street, from Jeffries street to about 250 feet east	
London street, from Decatur street to Maverick street	8 50
	<u>\$46,236 28</u>

Built 6,799.50 linear feet, 35 manholes, 25 catch-basins.

CHARLESTOWN.

Haverhill street, from Perkins street to Main street	<u>\$2,106 97</u>
--	-------------------

Built 320.76 linear feet, 3 manholes.

BRIGHTON.

Dumas, Cygnet, Ascot and Lincoln streets . . .	\$269 92
North Beacon street, from 180 feet west of Parsons street to 291 feet west	112 37
Foster street, from 260 feet south of Washington street to 75 feet south	2,089 48
Cleveland circle, from Beacon street to Chestnut Hill avenue	
Chestnut Hill avenue, from Cleveland circle to Brookline line	
Colonial road, from Commonwealth avenue to Euston road	1,605 59
Colon street, from Buckminster street to Warren street	3,604 66
Commonwealth avenue, from Ashby street to Essex street	14,308 23
Kenrick street, from Lake street to Brayton road, Walbridge street, from Brainerd road to Commonwealth avenue	2,922 56
Commonwealth avenue, about 600 feet west of Cottage Farm Bridge	888 41
	2,354 94
	<u>\$28,156 16</u>

Built 4,254.48 linear feet, 25 manholes.

WEST ROXBURY.

Mendelssohn street, from Nikisch avenue to Washington street	\$4,800 02
Hobson street, from Beech street to 420 feet east, Private land, Board of Survey street No. 1706, from Caspar street to Newfield street	
Newfield street, from Board of Survey street No. 1706 to Brook Farm road	
Archdale road, from Washington street to 580 feet south and east	2,205 68
Ballard street, from Centre street to Bardwell street	2,443 19
Hyde Park avenue at Northbourne road	408 02
Glenside avenue, from Glen road to 375 feet southerly	21 00
Centre street, from La Grange street to 360 feet northerly	21 00
La Grange street, from Glenham street to 590 feet southeast	1,674 67
Haydn street, from Nikisch avenue to Washington street	3,618 29
Brahms street, from Nikisch avenue to Washington street	
<i>Carried forward</i>	<u>\$16,145 74</u>

<i>Brought forward</i>	\$16,145 74
Elven road, from Washington street to Stony brook	20 00
Farragut street, from Salisbury street to Ellswood street	* 6,039 78
Ellswood street, from Farragut street to Baker street	
Baker street, from Ellswood street to Chiswick road	
Worley street, from metropolitan sewer to Dwinell street	2,028 08
Hodgdon terrace, from Maple street to 200 feet westerly	343 24
Florence street, from Westbourne road to Wyvern street	
Wyvern street, from Florence street to Hyde Park avenue	
	<hr/> \$24,576 84 <hr/>

Built 4,640.99 linear feet, 24 manholes.

DORCHESTER.

Astoria street, from Mattapan brook to Norfolk Street Playground	\$3,333 09
Caspian way, from Savin Hill avenue to Rockland avenue	6,205 89
Everton street, from Geneva avenue to Olney street	
River street, from Holmfield avenue to 345 feet westerly	
Freeport street, Linden street and Dorchester ave.,	1,463 00
Chester street, from 225 feet southwest of Rockway street	3,122 90
Private land, from Rexford street to Chester street	
Columbia park, from Intervale street to 85 feet north	
Favre street, from Oakland street to 490 feet northeast	1,115 83
Private land, from Favre street to Haven avenue,	
Royal road, from Randolph road to Raleigh road,	
Devon street, from Lorraine street to 35 feet southeast	
Lorraine street, from Stanwood street to Devon street	1,406 88
Randolph road, from Rock road to Rosemont street	
<i>Carried forward</i>	<hr/> \$16,647 59 <hr/>

* Built in connection with Temple street, and outlet. Separate system of drainage.

<i>Brought forward</i>	\$16,647 59
Richfield street and Westwood street	1,946 70
Oakland street, Rockdale street to Hollingsworth street	2,549 33
Oakland street, from Richmond road to 150 feet easterly	
Hilltop street, from Granite avenue to Hallet Davis street	563 70
Adams street, from Beaumont road to 150 feet south	1,772 51
Southwick street, from Freeport street to Savin Hill avenue	
Dorchester avenue, from Hancock street to Savin Hill avenue	3,948 58
Davenport brook, from Codman street to Washington street	42,179 62
Dorchester brook in Dacia street, from Brookford street to Quincy street	62,169 45
Lenoxdale avenue and Myrtlebank avenue	279 11
Westville street, from 90 feet west of Ditson street to Draper street	2,221 18
Leroy street west, from Ditson street	
Josephine street, from Ditson street to 90 feet west	
Bowdoin street, from Winter street to Hendry street	17,412 33
Hendry street, from Bowdoin street to Coleman street	
Coleman street, from Hendry street to Quincy street	
Downer avenue, from Pleasant street to Sawyer avenue	2,453 52
Alexander street, from 635 feet south of Oleander street to 162 feet south	2,327 81
Parker terrace, from Ashmont street to 170 feet south	
Private land, from Chelmsford street to Franconia street	1,759 46
Franconia street, from Adams street to Charlmont street	
Eaton street, from Howe street to 170 feet northwest	463 82
Payson avenue, from Hancock street to Glendale street	952 52
Rugby road, from Oakland street to Randolph road	3,045 26
Blake street, at Randolph road	
Willow court, from Massachusetts avenue to 123 feet east from Field's court	1,828 92
<i>Carried forward</i>	<u>\$164,521 41</u>

<i>Brought forward</i>	\$164,521 41
Harvest street, from Willowwood street to Lucerne street	644 03
Train street, from 100 feet south of Boutwell street to Boutwell street	
Rutledge road, from 360 feet east of Wood ave- nue to 160 feet west of Hyde Park	
Groveland street, from Glenmore street to Man- chester street	1,069 21
Levant street, from 150 feet east of Tehoe street to 140 feet easterly	633 95
Delano street, from Levant street to Bowdoin st.,	
Mount Ida road, from Homes avenue to 200 feet north	1,678 61
Homes avenue, from 70 feet southwest of Mount Ida road to Mount Ida road	
Private land, south of Park street, opposite Mar- lowe street*	1,326 16
Estella street, from Morton street to 270 feet westerly	1,709 79
Lawrence avenue, from 65 feet southeast of Mas- coma street to 95 feet southeast	99 50
Stoughton street, from 347 feet southeast of Columbia road to 100 feet southeast	
Wilcox road, from Beaumont street to Elm road	10 00
Sampson street, from Adams street to 295 feet easterly	
	<hr/> \$171,692 66

Credit.

To Separate System of Drainage on account Lith- gow street	802 18
	<hr/> \$170,890 48

Built 18,373.03 linear feet, 110 manholes, 69 catch-basins.

HYDE PARK.

West street, from Neponset river to River street	\$242 45
Erie street, from Neponset river to Vose avenue	135 53
Water street, from Garfield street to East Glen- wood avenue	3,437 10
East Glenwood avenue, from Water street to Lor- ing street	
Wilton street, from Hyde Park avenue to 250 feet southeast	116 00
Randolph road, from Rock road to Ridge road	
	<hr/> \$3,931 08

Built 1,206.27 linear feet, 7 manholes.

* Built in connection with Morton street, etc. Separate system of drainage.

CITY PROPER.

Albany street, from Dover street to Massachusetts avenue	\$19,426 31
Albany street, across at East Dedham street	11,547 91
East Dedham street, from Albany street to Thorn street	
Canal street, from Causeway street to Traverse street	17,994 42
South End Sewer Improvement, Section 3	840 00
South End Sewer Improvement, Section 5	2,890 18
North Bennet street, Wiggin street and Tileston street	2,794 97
Salutation street, from Commercial street to Hanover street	551 92
South End Sewer Improvement, Alleys 539, 542, 543, 545	2,495 30
Washington street, from Stillman street to Cross street	928 09
South, Kingston, Albany, Lincoln and East streets, South End Sewer Improvement, Columbus avenue, from Alley 815 to Wellington street, and Wellington street, from Columbus avenue to Alley 531	537 05
South End Sewer Improvement, Shawmut avenue at Union Park street	8,873 94
Upton Street, from Shawmut avenue to Newland street, and Newland street, from Upton street to Draper's lane	
Cross street, from Commercial street to Fulton street	1,837 47
Beach, Kilby, Water and Broad streets	1,769 78
Canal street, from Market street to Merrimac street	62 07
Sudbury street, from Haymarket square to Portland street	18,188 17
Clinton street, from Commercial street to Merchants row	
Albany street, from Harvard street to Kneeland street	4,670 87
Barrett street, from Fulton street to 100 feet westerly	15,765 98
Fulton street, from Richmond street to Ferry street	
Harrison avenue, from Kneeland street to Dover street	3,592 74
Summer street, from Estes place to 235 feet southeasterly	19,231 54
	537 00
	<u>\$134,535 71</u>

Built 6,227.99 linear feet, 66 manholes, 56 catch-basins.

PUBLIC WORKS DEPARTMENT.

445

ROXBURY.

Randall street, from Harrison avenue to Albany street	\$1,583 84
Binney street, from Longwood avenue north-easterly	424 97
Brookline avenue, from Audubon road to Jersey street	11,909 10
Roys street, from Lamartine street to Chestnut avenue	564 74
Jersey street, from Peterborough street to Audubon road	4,726 98
	<hr/>
	<u>\$19,209 63</u>

Built 2,081.73 linear feet, 10 manholes, 4 catch-basins.

SEWERAGE WORKS LOAN, 1916-17.

Engineers' salaries, general	\$56,518 87
Amount charged to construction of sewers	19,732 50
	<hr/>
	<u>\$76,251 37</u>

ENGINEERS' EXPENSE.

Labor	\$1,423 61
Teaming	665 27
Borings	2,583 69
Car fares, etc.	1,712 66
Photos	902 40
Supplies, etc.	6,615 90
	<hr/>
	<u>\$13,903 53</u>

PUMPING STATION CONSTRUCTION.

Contracts, Pumping Station, Calf Pasture.

New discharge gates, labor	\$79 52
Stock	246 15
	<hr/>
	\$325 67
Boston Painting and Roofing Com- pany	\$936 80
R. Minton Company	1,049 00
	<hr/>
	1,985 80
Advertising	4 50
Steel closets	42 00
New ventilator and erecting	507 00
Valve pattern	41 94
Casting	138 60
Cable chains	222 60
	<hr/>
<i>Carried forward</i>	\$3,268 11

Brought forward \$3,268 11

Union Park Street.

New gauge	\$90 00	
Installing same	69 70	
Roofing	300 00	
	<hr/>	459 70
		<hr/>
		<u>\$3,727 81</u>

SUNDRIES.

Advertising	\$5 50	
Expert services	70 00	
Labor	137 67	
Ironwork	1,267 08	
Traps and hooks	1,085 00	
Car fares	10 90	
Pipe	6 22	
	<hr/>	
	\$2,582 37	
Less labor, 1915 account	222 07	
	<hr/>	\$2,360 30
		<hr/>

COURT EXECUTIONS AND AWARDS ON ACCOUNT OF LAND
TAKINGS, ETC.

J. A. Fitten, trustee, Brook avenue, Roxbury	\$100 00
F. J. McCarthy, trustee, private land off Ben- nington street, East Boston	239 20
Robert G. Jones, private land and Dorchester avenue, Dorchester	729 20
P. H. Fitzgerald, Dorchester brook, Dorchester,	50 00
Sophia P. Lord, Chester street, Dorchester	100 00
C. H. Jennings, Talbot avenue, Dorchester	860 00
C. and H. L. Gay, Redford street, Brighton	100 00
F. J. McLaughlin, Freeport street, Dorchester	50 00
Mark S. Reinstein, Brook avenue, Roxbury	300 00
	<hr/>
	<u>\$2,528 40</u>

Sewerage Works.—New Manholes.

Location.	Built by	Number.	Labor.	Teaming.	Materials.	Contracts.	Totals.	Begun.	Finished.
Gardner street.	Day labor.	1	\$50 60	\$13 55	\$29 95	..	\$94 10	Mar. 3	Mar. 7
Bennett street.	Day labor.	1	89 70	63 86	45 71	..	199 27	Feb. 24	Mar. 8
25 Sigourney street.	Day labor.	1	138 11	16 25	27 80	..	181 66	April 28	May 3
Massachusetts avenue	Day labor.	3	113 14	33 00	176 99	..	323 13	May 2	May 11
Milton street.	Day labor.	3	166 64	..	..	..	* 166 64	May 8	May 31
Emerson street.	Day labor.	1	54 25	10 00	25 53	..	89 78	June 7	June 13
Webster avenue.	Day labor.	1	49 69	18 00	25 77	..	93 46	June 12	June 16
Hartford street.	Day labor.	1	37 89	10 00	32 25	..	80 14	June 15	June 22
Beacon street.	Day labor.	1	87 56	..	81 52	..	* 169 08	April 20	June 3
Hanover and Harris streets.	Day labor.	2	112 75	18 00	68 96	..	199 71	June 28	July 13
Lark street.	Day labor.	1	24 84	12 00	31 56	..	68 40	July 27	July 29
.. street.	Day labor.	1	29 66	17 00	..	..	* 56 66	July 21	July 25
..	Day labor.	1	118 48	36 00	..	..	* 152 48	July 25	Aug. 6
..	Day labor.	3	263 02	56 00	63 00	..	* 384 02	July 30	Aug. 2
..	Day labor.	1	138 41	..	55 90	..	* 194 31	Aug. 14	Aug. 31
..	Day labor.	1	58 73	7 00	..	..	* 65 73	Sept. 1	Sept. 5
Wildwood street.	Day labor.	1	89 08	13 00	55 98	..	158 06	Sept. 13	Sept. 18
Opposite 55 Bickford street.	Day labor.	2	61 55	21 50	5 94	..	* 78 99	Nov. 6	Nov. 11
Commercial street.	Day labor.	1	64 53	..	..	..	* 64 53	Dec. 7	Dec. 9
Batterymarch street.	Day labor.	1	40 20	..	..	..	* 40 20	Dec. 26	Jan. 1†
South street.	Day labor.	1	..	35 00	91 93	..	* 146 93	Aug. 16	Aug. 27
Rutland street.	Contract	1	39 66	8 00	15 81	\$282 03	345 50	June 5	June 22
Miscellaneous.	Contract	2	..	19 38	..	130 00	* 130 00	Dec. 1	Dec. 7
Paid in 1916 — Manholes built in 1915.	..	..	38 34	10 00	229 25	..	277 59	..	..
Totals.	..	32	\$1,864 83	\$439 54	\$1,063 35	\$412 03	\$3,779 75	..	..

* Cost not complete.

† 1917.

SEWERAGE WORKS LOAN.
New Catch-basins Paid for, February 1, 1916, to January 31, 1917. (Contract and Day Labor.)

District.	Built by	BUILT IN 1915.		BUILT IN 1916.			Total Expendi- ture.	Location.	Number Catch- basins Built.	Number Catch- basins Rebuilt.
		Materials, etc.	Labor.	Con- tractor.	Material and Teaming.					
New catch-basins, South Boston.....	Day labor.....	\$365 84	.....	.....	.....	.....	\$365 84			
New catch-basins, South Boston.....	Day labor.....	.....	\$135 04	.....	\$163 70	.....	298 74	Tuckerman street.....	2	
New catch-basins, South Boston.....	Day labor.....	.....	125 88	.....	148 17	.....	274 05	E street.....	2	
New catch-basins, South Boston.....	Day labor.....	.....	113 61	.....	103 85	.....	217 46	Summer street.....	1	
New catch-basins, South Boston.....	Day labor.....	.....	213 84	.....	61 80	.....	* 275 64	Emerson street.....	1	
New catch-basins, South Boston.....	Day labor.....	.....	174 73	.....	33 00	.....	* 207 73	A street, No. 236.....	1	
New catch-basins, South Boston.....	Contract.....	.....	21 00	\$234 68	.....	.....	* 255 68	Dorchester avenue.....	3	
New catch-basins, South Boston.....	Day labor.....	.....	96 77	.....	77 90	.....	* 174 67	East First street, at Dor- chester street.	2	
New catch-basins, South Boston.....	Day labor.....	.....	182 17	.....	22 00	.....	* 204 17	East First street, at L street,	1	
New catch-basins, South Boston.....	Day labor.....	.....	113 70	.....	.....	.....	113 70	Connections.		
		\$365 84	\$1,176 74	\$234 68	\$610 42	.....	\$2,387 68		13	
New catch-basins, East Boston.....	Day labor.....	.....	\$82 50	.....	\$53 29	.....	\$135 79	322 Border street.....	1	
New catch-basins, East Boston.....	Day labor.....	.....	388 00	.....	389 83	.....	777 83	Saratoga street.....	4	
New catch-basins, East Boston.....	Day labor.....	.....	24 30	.....	.....	.....	* 24 30	Condor street, drop inlet.....	1	

New catch-basins, East Boston.....	Contract.....	.....	.....	106 61	.....	* 106 61	Webster street.....	1
			\$494 80	\$106 61	\$443 12	\$1,044 53		7
New catch-basins, Charlestown.....	Day labor.....		\$45 78		\$19 09	* \$64 87	Alford street.....	1
			\$45 78		\$19 09	\$64 87		1
New catch-basins, Brighton.....	Day labor.....	\$110 97				\$110 97		
New catch-basins, Brighton.....	Contract.....		\$10 00	\$297 65		* 307 65	Union and Washington streets.	1
New catch-basins, Brighton.....	Contract.....		14 00	156 00		* 170 00	Hano street.....	1
New catch-basins, Brighton.....	Contract.....		7 00	112 00		* 119 00	Turner street.....	1
New catch-basins, Brighton.....	Contract.....		62 00			62 00	Connections.	
		\$110 97	\$93 00	\$565 65		\$769 62		3
New catch-basins, West Roxbury.....	Day labor.....		\$192 45		\$57 93	* \$250 38	Union avenue.....	1
New catch-basins, West Roxbury.....	Day labor.....		167 55		25 98	* 193 53	Green street, at Amory street, drop inlet.	2
New catch-basins, West Roxbury.....	Day labor.....		121 06		44 37	165 43	South street, opposite 567..	1
New catch-basins, West Roxbury.....	Day labor.....		343 79		187 90	531 69	South street at Archdale road.	2
New catch-basins, West Roxbury.....	Day labor.....		149 57		85 65	235 22	Boylston street.....	1
New catch-basins, West Roxbury.....	Day labor.....		416 06		279 97	696 03	Granada avenue.....	3
New catch-basins, West Roxbury.....	Day labor.....		144 06		72 51	216 57	South street, No. 562.....	1
New catch-basins, West Roxbury.....	Day labor.....		136 32		41 50	* 177 82	Florence street.....	1
New catch-basins, West Roxbury.....	Day labor.....		326 37		170 71	497 08	Morton street.....	2
New catch-basins, West Roxbury.....	Day labor.....		264 53		98 59	* 363 12	Canterbury street.....	2

* Cost not complete.

Sewerage Works Loan.— Continued.

District.	Built by	BUILT IN 1915.		BUILT IN 1916.				Location.	Number Catch-basins Built.	Number Catch-basins Rebuilt.
		Materials, etc.	Labor.	Contractor.	Material and Teaming.	Total Expenditure.				
New catch-basins, West Roxbury	Day labor . . . .	. . . . .	\$102 36	. . . . .	. . . . .	* \$102 36	Connections.		
New catch-basins, West Roxbury	Day labor . . . .	. . . . .	246 20	. . . . .	\$118 09	364 29	Bellevue avenue		1
New catch-basins, West Roxbury	Day labor . . . .	. . . . .	217 30	. . . . .	88 03	305 33	415 Centre street		1
New catch-basins, West Roxbury	Day labor . . . .	. . . . .	278 36	. . . . .	76 03	354 39	27 Cornell street		1
New catch-basins, West Roxbury	Contract . . . .	. . . . .	100 91	\$333 40	12 25	446 56	Walk Hill and Wachusett street.		2
New catch-basins, West Roxbury	Contract . . . .	. . . . .	28 00	256 35	. . . . .	284 35	Canterbury street		1
New catch-basins, West Roxbury	Day labor . . . .	. . . . .	134 76	. . . . .	. . . . .	* 134 76	Centre street at Green street, track basins.		2
New catch-basins, West Roxbury	Day labor . . . .	. . . . .	257 94	. . . . .	. . . . .	* 257 94	Walk Hill street at Paine street.		1
			\$3,627 59	\$589 75	\$1,359 51	\$5,576 85			25	
New catch-basins, Dorchester	Day labor	\$173 25	. . . . .	. . . . .	. . . . .	\$173 25			
New catch-basins, Dorchester	Day labor . . . .	. . . . .	\$118 99	. . . . .	\$61 59	180 58	Pleasant street		1
New catch-basins, Dorchester	Day labor . . . .	. . . . .	114 78	. . . . .	15 84	130 62	Stoughton street, track basins.		2
New catch-basins, Dorchester	Day labor . . . .	. . . . .	617 89	. . . . .	62 25	* 680 14	Epping street		2
New catch-basins, Dorchester	Contract . . . .	. . . . .	73 50	. . . . .	. . . . .	* 73 50	Norfolk avenue		1

New catch-basins, Dorchester.....	Day labor.....	.....	49 60	.....	16 00	65 60	Connections.	
New catch-basins, Dorchester.....	Contract.....	24 50	.....	.....	.....	24 50	-	
New catch-basins, Dorchester.....	Contract.....	.....	97 70	\$1,957 54	453 14	2,508 38	Theodore street, etc.....	5
New catch-basins, Dorchester.....	Contract.....	.....	303 00	2,221 96	867 00	3,391 96	Abbott street, etc.....	10
Credit transfer to separate systems of drainage.		.....	.....	\$4,179 50	.....	\$7,228 53		21
		.....	.....	1,196 95	.....	1,196 95		
New catch-basins, Hyde Park.....	Day labor.....	\$197 75	\$1,375 46	\$2,982 55	\$1,475 82	\$6,031 58	Milton street.....	5
New catch-basins, Hyde Park.....	Day labor.....	.....	\$622 25	.....	\$474 62	\$1,096 87		
		.....	45 50	.....	.....	45 50	Connections.	
New catch-basins, Roxbury.....	Day labor.....	.....	\$667 75	.....	\$474 62	\$1,142 37		5
		\$469 17	.....	.....	.....	\$469 17		
New catch-basins, Roxbury.....	Day labor.....	.....	\$1,323 77	.....	\$653 05	1,976 82	Brookline avenue.....	4
New catch-basins, Roxbury.....	Day labor.....	.....	146 16	.....	103 45	249 61	Wait street.....	1
New catch-basins, Roxbury.....	Day labor.....	.....	105 56	.....	101 86	207 42	Columbus avenue.....	1
New catch-basins, Roxbury.....	Day labor.....	.....	64 50	.....	104 80	169 30	Massachusetts avenue.....	1
New catch-basins, Roxbury.....	Day labor.....	.....	97 18	.....	75 90	173 08	Jersey street.....	1
New catch-basins, Roxbury.....	Day labor.....	.....	277 11	.....	105 80	382 91	Roys and Wise streets.....	2
New catch-basins, Roxbury.....	Day labor.....	.....	138 87	.....	16 00	* 154 87	Homestead street.....	2
New catch-basins, Roxbury.....	Day labor.....	.....	966 76	.....	107 70	* 1,074 46	{Seaver street..... {Seaver street, track inlets.....	1 2
New catch-basins, Roxbury.....	Contract.....	.....	8 75	\$106 48	.....	* 115 23	Wensley street.....	1

* Cost not complete.

Sewerage Works Loan.—Concluded.

District.	Built by	BUILT IN 1915.		BUILT IN 1916.				Location.	Number Catch-basins Built.	Number Catch-basins Rebuilt.
		Materials, etc.		Labor.	Contractor.	Material and Teaming.	Total Expenditure.			
New catch-basins, Roxbury.....	Contract.....	.....	\$21 00	\$72 10	.....	.....	* \$93 10	Dearborn street.....	.....	2
New catch-basins, city proper.....	Day labor.....	\$469 17	\$3,149 66	\$178 58	.....	\$1,268 56	\$5,065 97	.....	16	2
New catch-basins, city proper.....	Day labor.....	\$598 01	.....	.....	.....	.....	\$598 01	Connections.	.....	.....
New catch-basins, city proper.....	Day labor.....	.....	\$307 29	.....	.....	\$22 00	329 29	Cross street.....	4	.....
New catch-basins, city proper.....	Day labor.....	.....	324 23	.....	.....	141 90	* 466 13	Rose street.....	2	.....
New catch-basins, city proper.....	Day labor.....	.....	155 08	.....	.....	103 80	* 258 88	McKinley square.....	1	.....
New catch-basins, city proper.....	Day labor.....	.....	298 85	.....	.....	119 38	418 23	Batterymarch street.....	2	.....
New catch-basins, city proper.....	Day labor.....	.....	267 43	.....	.....	92 50	* 359 93	Fulton street.....	1	.....
New catch-basins, city proper.....	Day labor.....	.....	142 73	.....	.....	30 00	172 73	52 South Market street.....	1	.....
New catch-basins, city proper.....	Day labor.....	.....	176 49	.....	.....	8 00	184 49	Commercial street.....	1	.....
New catch-basins, city proper.....	Day labor.....	.....	176 67	.....	.....	30 00	* 206 67	Clinton street.....	2	.....
New catch-basins, city proper.....	Day labor.....	.....	224 65	.....	.....	37 80	* 262 45	Blackstone street.....	1	.....
New catch-basins, city proper.....	Day labor.....	.....	185 18	.....	.....	28 00	* 213 18	Kneeland street.....	1	.....
New catch-basins, city proper.....	Day labor.....	.....	170 41	.....	.....	25 00	* 195 41	North Grove street.....	1	.....
New catch-basins, city proper.....	Day labor.....	.....	63 68	.....	.....	14 00	* 77 68	Parkman street.....	4	.....
New catch-basins, city proper.....	Day labor.....	.....	394 65	.....	.....	170 32	* 564 97	.....	.....	.....

New catch-basins, city proper.....	Day labor.....	.....	135 14	.....	41 90	* 177 04	St. Botolph street.....	1
New catch-basins, city proper.....	Day labor.....	.....	178 29	.....	36 00	214 29	Devonshire street.....	1
New catch-basins, city proper.....	Day labor.....	.....	135 43	.....	28 00	* 163 43	Commerce street.....	1
New catch-basins, city proper.....	Day labor.....	.....	77 66	.....	.....	77 66	Washington and Brookline streets.....	1
New catch-basins, city proper.....	Contract.....	.....	21 00	\$239 17	.....	* 260 17	Union Park street.....	2
New catch-basins, city proper.....	Contract.....	.....	21 00	155 32	.....	* 176 32	Newland street.....	1
New catch-basins, city proper.....	Contract.....	.....	10 50	143 24	.....	* 153 74	Berwick park.....	1
New catch-basins, city proper.....	Contract.....	.....	10 50	96 75	.....	* 107 25	Albany street.....	1
		\$598 01	\$3,476 86	\$634 48	\$928 60	\$5,637 95		
Grand totals.....		\$1,741 74	\$14,107 64	\$5,292 30	\$6,579 74	\$27,721 42		

* Cost not complete.

New Catch-basins Paid for, February 1, 1916, to January 31, 1917. (Included in Other Sewer Construction.)

District.	Built by	BUILT IN 1916.				Total Expenditures.	Location.	Number.
		Con-tractor.	Materials.	Labor.	Materials and Teaming.			
New catch-basins, East Boston.....	Contract.....	\$57 00	\$68 00	.....	.....	\$125 00	Condor street.....	1
New catch-basins, East Boston.....	Contract.....	961 00	.....	.....	.....	* 961 00	Frankfort street.....	15
New catch-basins, East Boston.....	Contract.....	684 75	319 80	.....	.....	1,004 55	Gove street.....	9
New catch-basins, Dorchester.....	Contract.....	796 00	350 00	.....	.....	1,146 00	Caspian way.....	10
New catch-basins, Dorchester.....	Contract.....	283 46	133 40	.....	.....	416 86	Adams street.....	4
New catch-basins, Dorchester.....	Contract.....	1,882 40	497 60	.....	.....	2,380 00	Dorchester avenue.....	18
New catch-basins, Dorchester.....	Contract.....	460 00	.....	.....	.....	* 460 00	Dorchester brook.....	5
New catch-basins, Dorchester.....	Contract.....	248 00	.....	.....	.....	* 248 00	Bowdoin street.....	4
New catch-basins, Dorchester.....	Contract.....	373 70	169 50	.....	.....	545 20	Downer avenue.....	6
New catch-basins, Dorchester.....	Contract.....	407 25	82 75	.....	.....	490 00	Alexander street.....	3
New catch-basins, Dorchester.....	Contract.....	689 25	210 75	.....	.....	900 00	Rugby road.....	7
New catch-basins, Dorchester.....	Contract.....	214 25	275 75	.....	.....	490 00	Willow court.....	9
New catch-basins, Dorchester.....	Contract.....	363 06	102 60	.....	.....	465 66	Mount Ida road.....	3
New catch-basins, Roxbury.....	Contract.....	300 00	.....	.....	.....	* 300 00	Brookline avenue.....	4
New catch-basins, city proper.....	Contract.....	2,092 90	761 40	.....	.....	2,854 30	Albany street.....	26
New catch-basins, city proper.....	Contract.....	125 41	19 75	.....	.....	145 16	Shawmut avenue.....	1
New catch-basins, city proper.....	Contract.....	150 00	.....	.....	.....	* 150 00	Cross street.....	3

New catch-basins, city proper.....	Contract.....	890 10	65 00	.....	.....	955 10	Clinton street.....	5
New catch-basins, city proper.....	Contract.....	50 00	.....	.....	.....	* 50 00	Albany street.....	1
New catch-basins, city proper.....	Contract.....	300 00	.....	.....	.....	* 300 00	Barrett street.....	5
New catch-basins, city proper.....	Contract.....	750 00	.....	.....	.....	* 750 00	Harrison avenue.....	15
		\$12,080 53	\$3,056 30	.....	.....	\$15,136 83		154

* Cost not complete.

		Recapitulation.	Amount Paid.
119 catch-basins built	}	.....	\$27,721 42
4 catch-basins rebuilt		.....
154 catch-basins built included in other sewer construction.....		.....	15,136 83
<u>277</u>			<u>\$42,858 25</u>

Separate Systems of Drainage.
Expenditures February 1, 1916, to January 31, 1917.

ACCOUNTS.	Labor.	Teaming.	Materials.	Miscellaneous.	Paid to Contractors.	Totals.
Engineers' salaries.....	\$30,964 43	.....	.....	.....	.....	\$30,964 43
Engineers' expense.....	418 20	\$219 12	.....	\$1,545 55	.....	2,182 87
Sundries.....	50 16	.....	\$1,611 44	.....	.....	1,661 60
Land-takings and court executions.....	.....	.....	.....	250 00	.....	250 00
New catch-basins, Brighton.....	.....	132 39	146 67	.....	.....	279 06
New catch-basins, West Roxbury.....	.....	80 43	116 97	.....	\$401 92	599 32
New catch-basins, Dorchester.....	117 27	.....	549 51	.....	1,985 56	* 2,652 34
Sewers built in entire city.....	42,264 28	1,374 62	16,705 28	1,041 50	390,601 42	451,987 10
Totals.....	\$73,814 34	\$1,806 56	\$19,129 87	\$2,837 05	\$392,988 90	\$490,576 72

* \$1,455.39 transferred from Sewerage Works on account of basins built in 1915.



ENGINE ROOM, UNION PARK STREET PUMPING STATION. (Photo by F B Conlin)

SEPARATE SYSTEMS OF DRAINAGE EXPENDITURES
FOR 1916 AND 1917.

BRIGHTON.

Hunnewell avenue, from Champney street to Richards street	\$4 50
Matchett street, from Washington street to 450 feet northeast of Hunnewell avenue	357 80
Lanark road, from Kilsyth road to Colliston road, Atkins street, from Washington street to 610 feet northeast	43 51
Faneuil valley brook, in private land, from Parsons street about 178 feet east to about 100 feet north of Faneuil street	3,915 94
Gaffney street, from Commonwealth avenue to Boston & Albany Railroad	9,081 77
Gaffney street outlet, from Commonwealth avenue outlet, near Cottage Farm, to Gaffney street	8,923 27
Beacon street, from Reservoir avenue to Newton line	
Telford street, from Soldiers Field road to Western avenue	6,952 53
Charles River Reservation, from Charles river to Telford street	
Cummings road, from Corey road to Commonwealth avenue	3,061 92
Commonwealth avenue, from St. Luke's road to Fordham road	5,789 78
Fordham road, from Commonwealth avenue to Brighton avenue	
Cufflin street, from Nonantum street to Tremont street	1,917 98
Glencoe street, from North Beacon street to Garden street	2,706 09
Academy Hill road, from Chestnut Hill avenue to William Jackson avenue	24 80
William Jackson avenue, from Chestnut Hill avenue to Academy Hill road	
	<u>\$42,779 89</u>

Built 8,722.52 linear feet, 58 manholes, 37 catch-basins.

WEST ROXBURY.

Pleasant, Dent, Ivory and Perham streets . . .	\$7,876 97
Selwyn street, from Farquhar street to 1,174 feet northeast . . .	548 58
Woodman, Custer, Ballard, Bardwell, Hathaway, Centre and Aldworth streets and Dunster road . . .	17,209 15
St. Rose street extension, from South street to St. Rose street . . .	254 52
Spring street brook, in private land, 165 feet east of Alaric street to Centre street . . .	5,682 33
Gilmore terrace, from Park street to end of terrace, Patten street, from Hyde Park avenue to Wachusett street . . .	753 72
Stony brook, section 8 . . .	678 34
Stony brook, section 9, private land, junction of Washington and Walk Hill streets to a point 122 feet south of Washington street, at Franklin place . . .	7,500 00
Temple, Hillcrest, Lorette and Elgin streets, Temple street outlet . . .	146,698 84
Chiswick street, Tarleton road, Board of Survey street No. 1566 and No. 1549, private land, Durant, Farragut, Ellswood and Baker streets, Saville street, from Stratford street to Park street, Park street, from Robin street to Oriole street, Lorette street, from Spring street to end of street, 460 feet northwesterly . . .	33,015 58
Perham, Winslow, Vermont and Alder streets, private land . . .	9,872 47
Land of the City of Boston . . .	2,069 96
Canterbury street, from Hyde Park avenue to New York, New Haven & Hartford Railroad, Montvale street, from Belgrade avenue to 215 feet northwest . . .	18,001 47
Private land, from Belgrade avenue to Montvale street . . .	1,638 82
Orange street, from West street to Beech street, Cornell street, from Orange street to Westbourne street . . .	6,766 94
La Grange street, from Linnet street to Shaw street . . .	4,137 11
Oriole street, from Emmons road to Bellevue street, Patten street, from Wachusett street to Bourne street . . .	1,428 66
Nathan road, from Patten street to 120 feet south . . .	4,215 22
Auburn street, from Roslindale avenue to Bellevue avenue . . .	1,313 61
Carried forward . . .	\$269,662 29

PUBLIC WORKS DEPARTMENT.

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<i>Brought forward</i>	\$269,662 29
Wachusett street, from Northbourne road to Eldridge road	1,428 47
Richwood, Willow and Centre streets and private land	8,575 31
Moraine street, from Centre street to Pond View avenue	5,536 94
Halifax street, from South Huntington avenue to Ashcroft street	
Elmwood street brook, in private land, and New Haven avenue from New York, New Haven & Hartford Railroad to North avenue	1,295 84
Kenton road, from Washington street to 835 feet southeasterly	106 80
Lorne street, from Harvard avenue to 650 feet northwesterly	19 50
	<u>\$286,625 15</u>

Built 32,071.17 linear feet, 179 manholes, 86 catch-basins.

DORCHESTER.

Allerton road and Kenberma road	\$1,241 31
Franklin Field, from Lyford street to Stratton street	106 98
Lithgow street, from Wainwright street to Talbot avenue	535 36
Ripley road, Harwick and Vassar streets	2,889 95
Morton street, from Norfolk street to New York, New Haven & Hartford Railroad	* 4,009 30
Norfolk street, from Morton street to 77 feet north	
Centre street, from Dorchester avenue to Adams street	
Harvard street, from Johnston road to Morton street	13,622 30
Private land, from Park street to Paisley park, New England avenue and Bernard street, from 215 feet south of Talbot avenue to Norfolk street	
Harvest street, from Willowwood street to Lucerne street	6,447 14
	<u>\$28,852 34</u>
Transferred from sewerage works on account Lithgow street	802 18
	<u>\$29,654 52</u>

Built 2,425.51 linear feet, 13 manholes, 9 catch-basins.

* See Sewerage Works, private land south of Park street.

HYDE PARK.

Gordon avenue, from Beaver street to 600 feet northwesterly	<u><u>\$2,623 54</u></u>
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Built 506 linear feet, 2 manholes.

ROXBURY.

Amory street, from Centre street to Bragdon street	\$18,930 35
Harold street, from Holworthy street to Towns- end street	} 5,352 79
Holworthy street, from Harold street to 566 feet southeasterly	
St. Albans road, from Francis street to Hunting- ton avenue	897 64
Tremont entrance, from Louis Prang street to 565 feet southwesterly	17,309 33
Holworthy street, from Walnut avenue to Harold street	11,682 30
Walnut avenue, from Cobden street to Townsend street	461 80
Westminster road, from Walnut park to West- minster avenue	2,565 95
Gainsborough street, from St. Botolph street to New York, New Haven & Hartford Railroad	3,261 48
Deerfield street, at Back street	2,949 00
Burlington avenue, from Brookline avenue to Boston & Albany Railroad	6,474 18
Alley 914, from Jersey street to Queensberry street	7,438 13
	<u><u>\$77,322 95</u></u>

Built 8,431.76 linear feet, 40 manholes, 20 catch-
basins.

CITY PROPER.

Boylston place, from Boylston street to end	\$1,041 50
Fruit street, from Charles street to Blossom, street	} 11,939 55
Blossom street, from Fruit street to Allen street, North Grove street, from Parkman street to Cambridge street	
	<u><u>\$12,981 05</u></u>

Built 967.20 linear feet, 5 manholes, 4 catch-
basins.

Separate Systems of Drainage.

Engineers' salaries, general	\$30,964 43
Amount charged to construction of sewers	14,856 00
	<u><u>\$45,820 43</u></u>

PUBLIC WORKS DEPARTMENT.

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ENGINEERS' EXPENSE.

Labor	\$418 20
Teaming	219 12
Borings	756 16
Car fares	581 39
Photos	163 20
Supplies	44 80
	<hr/>
	\$2,182 87

Court Executions and Awards on Account of Land-takings, Etc.

H. L. Page and administrator J. H. Page, Street Commissioner's award, James street	\$125 00
Annie J. Brennan and Catherine E. Trainor, Street Commissioner's award, Baker street	125 00
	<hr/>
	\$250 00

SUNDRIES.

Labor and Inspection	\$50 16
Blacksmithing	3 60
Ironwork	1,475 76
Bricks	81 00
Sand	2 94
Cement	48 14
	<hr/>
	\$1,661 60

SEPARATE SYSTEMS OF DRAINAGE LOAN.
New Catch-basins Paid for, February 1, 1916, to January 31, 1917. (Contract and Day Labor.)

District.	Built by	Built in 1915.	Built in 1916.			Total Expendi- ture.	Location.	Number Catch- basins Built.	
		Materials, etc.	Labor.	Con- tractor.	Material and Teaming.				
New catch-basins, Brighton.....	Day labor....	\$279 06	.....	.....	.....	\$279 06	Washington street and Asti- cou road.....	2
New catch-basins, West Roxbury.....	Day labor....	\$279 06	\$279 06		2
New catch-basins, West Roxbury.....	Contract.....	\$197 40	\$197 40		2
		.....	.....	\$401 92	.....	401 92		
		\$197 40	.....	\$401 92	.....	\$599 32		
Grand totals.....	.....	\$476 46	.....	\$401 92	.....	\$878 38		

New Catch-basins Paid for, February 1, 1916, to January 31, 1917. (Included in Other Sewer Construction.)

District.	Built by	BUILT IN 1916.				Total Expendi- tures.	Location.	Number.
		Con- tractor.	Materials.	Labor.	Materials and Teaming.			
New catch-basins, Brighton.....	Day labor.....	.....	.....	\$720 00	\$511 59	\$1,231 59	Atkins street.....	7
New catch-basins, Brighton.....	Contract.....	\$192 98	\$50 00	.....	.....	242 98	Faneuil Valley brook.....	2
New catch-basins, Brighton.....	Contract.....	276 00	150 00	.....	.....	426 00	Gaffney street.....	4
New catch-basins, Brighton.....	Contract.....	276 26	150 00	.....	.....	426 26	Beacon street.....	4
New catch-basins, Brighton.....	Contract.....	569 00	222 65	.....	.....	791 65	Cummings road.....	6
New catch-basins, Brighton.....	Contract.....	334 63	175 00	.....	.....	509 63	Commonwealth avenue.....	5
New catch-basins, Brighton.....	Contract.....	80 79	30 00	.....	.....	110 79	Cuffin street.....	1
New catch-basins, Brighton.....	Contract.....	626 66	300 00	.....	.....	926 66	Glencoe street.....	8
New catch-basins, West Roxbury.....	Contract.....	609 15	300 00	.....	.....	909 15	Pleasant street.....	8
New catch-basins, West Roxbury.....	Contract.....	718 77	350 00	.....	.....	1,068 77	Woodman street.....	9
New catch-basins, West Roxbury.....	Contract.....	123 88	72 00	.....	.....	195 88	Stony brook, Section 9.....	2
New catch-basins, West Roxbury.....	Contract.....	1,320 54	400 00	.....	.....	1,720 54	Temple street.....	8
New catch-basins, West Roxbury.....	Contract.....	465 08	300 00	.....	.....	765 08	Saville street.....	7
New catch-basins, West Roxbury.....	Contract.....	1,238 04	600 00	.....	.....	1,838 04	Perham street.....	16
New catch-basins, West Roxbury.....	Contract.....	533 98	300 00	.....	.....	833 98	Orange street.....	8
New catch-basins, West Roxbury.....	Contract.....	81 28	40 00	.....	.....	121 28	Oriole street.....	1

New Catch-basins Paid for, February 1, 1916, to January 31, 1917.— Concluded.

District.	Built by	BUILT IN 1916.				Total Expenditures.	Location.	Number.
		Con-tractor.	Materials.	Labor.	Materials and Teaming.			
New catch-basins, West Roxbury.....	Contract.....	\$908 25	\$400 00			\$1,308 25	Patten street.....	10
New catch-basins, West Roxbury.....	Contract.....	350 00				* 350 00	Richwood street.....	7
New catch-basins, West Roxbury.....	Contract.....	991 01	350 00			1,341 01	Moraine street.....	10
New catch-basins, Dorchester.....	Contract.....	733 65	200 00			933 65	Morton street.....	8
New catch-basins, Dorchester.....	Contract.....	75 00	9 20			84 20	New England avenue.....	1
New catch-basins, Dorchester.....	Contract.....	2,109 34				2,109 34	Dorchester and Roxbury, transfer from Sewerage Works.	
New catch-basins, Dorchester.....	Contract.....	543 00				543 00	Dorchester and Hyde Park, transfer from Sewerage Works.	
New catch-basins, Roxbury.....	Day labor.....			\$75 00	\$50 00	125 00	Holworthy street.....	1
New catch-basins, Roxbury.....	Contract.....	284 71	90 00			374 71	St. Albans road.....	3
New catch-basins, Roxbury.....	Contract.....	900 00	200 00			* 1,100 00	Amory street.....	10
New catch-basins, Roxbury.....	Contract.....	269 50	100 00			369 50	Harold street.....	3
New catch-basins, Roxbury.....	Contract.....	426 22	110 00			536 22	Westminster road.....	3
New catch-basins, city proper.....	Contract.....	335 00				335 00	Fruit street.....	4
Totals.....		\$15,372 72	\$4,898 85	\$795 00	\$561 59	\$21,628 16		156

* Cost not complete.

2 catch-basins built.....	Amount Paid.
150 catch-basins built included in other sewer construction.....	\$878 38
	21,628 16
	<u>\$22,506 54</u>

ENTRANCE FEES, PERMITS AND ASSESSMENTS.

Entrance fees to the amount of \$3,479.44 have been deposited with the City Collector for collection from estates upon which no sewer assessment was ever paid, in accordance with the Ordinances of 1910, chapter 9, section 10.

Bills for sewer assessments amounting to \$380.28 have been deposited for collection, representing those estates assessed under chapter 456 of the Acts of 1889, and other acts, which have been connected during the year with the sewers for which they were assessed.

Bills for old sewer assessments amounting to \$883.50 have been deposited for collection, the collection of which had been postponed by vote of the Board of Aldermen until such time as the estates used the sewers for which they were assessed.

Three thousand and twenty-seven permits have been issued, viz., 366 to district foremen, 373 to contractors and 2,288 to licensed drain layers for repairing or laying house drains. The work done under these permits has been inspected and a record of the same made on the plans of the Sewer Service, in accordance with the Ordinances of 1910, chapter 9.

Plans for the assessment of estates for sewer construction have been furnished the Street Commissioners, representing 49,809 feet of sewers and appurtenances, costing \$600,104.

**Cost of Maintaining All Horses in the Sewer Service from
February 1, 1916, to January 31, 1917.**

ITEMS.	Total Cost.	29 Horses, Average Cost per Day.
Labor.....	\$7,362 34	\$0 695
Hay and grain.....	6,685 90	63
Shoeing.....	1,612 54	152
Veterinary services, medicine and clipping.....	331 00	031
Stable goods.....	61 58	006
	\$16,053 36	\$1 514

Summary of Sewer Construction for the Year Ending January 31, 1917.

DISTRICTS.	Built by the City by Contract or Day Labor.	Built by Private Parties.	TOTAL LENGTH BUILT.	
	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Miles.</i>
City proper.....	6,778 69	.....	6,778 69	1.284
Roxbury.....	9,778 99	.....	9,778 69	1.852
South Boston.....	356 47	6,426 00	6,782 47	1.285
East Boston.....	5,816 91	.....	5,816 91	1.102
Charlestown.....	320 76	.....	320 76	0.061
Brighton.....	12,258 50	598 30	12,856 80	2.435
West Roxbury.....	35,171 16	871 74	36,042 90	6.826
Dorchester.....	19,087 77	3,217 50	22,285 27	4.220
Hyde Park.....	1,872 31	.....	1,872 31	0.354
Totals.....	91,421 56	11,113 54	102,535 10	19.419

Schedule of Sewers Built to February 1, 1917, in the City of Boston.

DISTRICTS.	Length of Sewers Built During the Year Ending January 31, 1917.	Length of Sewers Re- built or Abandoned During the Year Ending January 31, 1917.	Additional Lengths of Sewers for the Year Ending January 31, 1917.	
	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Miles.</i>
City proper.....	6,778 69	3,191 36	3,587 33	0.679
Roxbury.....	9,778 99	101 64	9,677 35	1.833
South Boston.....	6,782 47	3,976 60	2,805 87	0.531
East Boston.....	5,816 91	180 90	5,636 01	1.067
Charlestown.....	320 76	320 76	.....	.....
Brighton.....	12,856 80	1,102 10	11,754 70	2.226
West Roxbury.....	36,042 90	1,117 96	34,924 94	6.615
Dorchester.....	22,285 27	1,393 63	20,891 64	3.956
Hyde Park.....	1,872 31	.....	1,872 31	0.354
Totals.....	102,535 10	11,384 95	91,150 15	17.26
Total length built previous to January 31, 1916.....				892.72
Length of common sewers.....				909.98
Length of metropolitan intercepting sewers.....				6.81
Length of intercepting sewers (city).....				24.12
Grand total.....				940.91
Total mileage of streets containing sewerage works.....				569.81

**Summary of Sewer Construction for Five Years Previous to
February 1, 1917.**

	1912.	1913.	1914.	1915.	1916.
	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>	<i>Linear Feet.</i>
Built by the city by contract or day labor.....	97,884.05	119,697.60	125,768.31	123,717.66	91,421.56
Built by private parties.....	28,828.91	19,470.82	14,810.40	19,009.86	11,113.54
Totals.....	126,712.96	139,168.42	140,578.71	142,727.52	102,535.10

COST OF PUMPING.

Average cost per million foot-gallons for pumping:
Volume (33,976.38 million gallons) by (= times) lift
(39.6 feet) = 1,345,464.5 million foot-gallons for the
year.

Labor cost included in the totals is based upon the
following force of 48 men:

One chief engineer, one clerk, one storekeeper, one
electrician, one carpenter, one blacksmith, two ma-
chinists, four laborers, and four "engineer's watches,"
each including nine men.

Cost of city water not included.

ITEMS.	Cost.	Cost per Million Foot- Gallons.
Labor.....	\$53,490 04	\$0 03976
Coal.....	30,094 85	0 02237
Oil and waste.....	1,741 35	0 00129
Rubber valves and packing.....	2,336 07	0 00174
Miscellaneous supplies and renewals.....	6,155 91	0 00457
Totals.....	\$93,818 22	\$0 06973
Labor at screens.....	\$4,078 29	\$0 00303

Table of Approximate Quantities, Lifts and Duties at Calf Pasture Pumping Station, 1916-17.

MONTH.	Total Pumpage Gallons.	Average per Day. Gallons.	Minimum Day. Gallons.	Maximum Day. Gallons.	Average Lift. Feet.	Average Duty, Foot- Pounds per 100 Pounds of Coal.
1916.						
February.....	3,358,507,000	115,810,600	85,393,800	188,257,700	39.6	80,400,000
March.....	3,409,703,100	109,990,400	88,406,200	128,928,000	39.6	81,900,000
April.....	3,366,561,000	112,218,700	93,422,200	171,771,000	39.7	91,400,000
May.....	2,895,135,600	93,391,500	74,792,200	177,497,500	39.6	94,100,000
June.....	2,874,472,900	95,815,800	78,845,100	155,212,400	39.7	89,800,000
July.....	3,012,517,100	97,178,000	74,901,100	140,064,900	39.6	96,000,000
August.....	2,920,538,000	94,210,900	70,002,700	120,859,700	39.6	91,600,000
September.....	2,497,213,700	83,240,500	69,251,100	118,066,700	39.8	87,300,000
October.....	2,217,138,200	71,520,600	62,203,900	95,683,800	39.7	83,200,000
November.....	2,035,680,300	67,856,000	62,191,100	104,422,900	39.7	79,100,000
December.....	2,532,672,500	81,699,100	65,224,200	135,989,900	39.5	81,400,000
1917.						
January.....	2,856,237,800	92,136,700	70,221,600	124,460,800	39.4	80,600,000
Total.....	33,976,377,200					
Averages.....		* 92,831,600	76,571,300	138,436,600	39.6	* 84,500,000

* Average from yearly quantities.
Records from plunger displacement.

Amount of Sludge Received and Removed from Deposit Sewers
from February 1, 1916, to January 31, 1917, Inclusive.

MONTH.	Cubic Yards Received.	Cubic Yards Removed.	
1916.			
February.....	120	Sludge in sewers February 1, 1916, 2,760 cubic yards.
March.....	134		
April.....	258	85	
May.....	427	255	
June.....	172	170	
July.....	107	85	
August.....	97	85	
September.....	556	630	
October.....	532	496	
November.....	270	470	
December.....	140		
1917.			
January.....	158	Sludge in sewers February 1, 1917, 3,455 cubic yards.
Totals.....	2,971	2,276	

Amount of Refuse Removed from Gatehouse from February 1, 1916, to January 31, 1917, Inclusive.

MONTHS.	Pounds.
1916.	
February	72,267
March	71,825
April	80,444
May	77,792
June	76,024
July	70,278
August	73,814
September	75,803
October	69,394
November	66,963
December	70,499
1917.	
January	68,289
	<div>873,392=436¹/₂ tons.</div>

Coal used in crematory=59⁸/₂₄₀ tons for 10 months and 23 days.

NOTE.— Refuse was burned under boilers from February 1, 1916, to March 8, 1916, inclusive.

Refuse was burned in crematory from March 8, 1916, to February 1, 1917.

**Number of Gates, Sumps, Regulators and Overflows to be Cared
for in Each District.**

	Gates.	Sumps.	Regulators.	Overflows.
Brighton.....	42	17	15	23
Charlestown.....	24	9	9	12
East Boston.....	47	19	18	26
City proper.....	102	41	15	42
Dorchester.....	64	11	2	18
South Boston.....	50	25	4	21
Roxbury.....	44	10	.....	20

Flushing and penstock gates, 19.

WORK ACCOMPLISHED FOR YEAR ENDING JANUARY 31, 1917.

Tide gates inspected and cleaned	2,870
Sumps inspected and cleaned	1,950
Regulators inspected and cleaned	1,170
Overflows inspected and cleaned	1,560
Tide gates repaired	150
Sumps repaired	30
Regulators repaired	45
Overflows repaired	20
Manholes repaired	130
Manhole steps put in and reset	70
Tide gates replaced with new ones	4
New tide gates put in	7
Penstock and flushing gates cleaned, oiled and re- paired	49
Old iron castings replaced on street with new ones	65
Old regulator floats replaced with new ones	5

PUBLIC WORKS DEPARTMENT, HIGHWAY DIVISION (WATER SERVICE).

FINANCIAL STATEMENT.

RECEIPTS.

Sales of water	\$3,037,974 66
Service pipes and repairs	30,611 24
Elevator, fire, motor and standpipes and repairs	27,490 71
Fees for summonses	3,746 25
Labor materials, etc., for miscellaneous work	3,275 08
Sales of old materials	2,533 77
Interest on bank deposits	1,059 38
Extension of main pipe	905 97
Sales of merchandise	855 53
Shutting off and letting on water	672 00
Board of horse	121 00
Testing meters	68 12
Sale of old automobile	35 00
Miscellaneous	1 00
Total receipts from all sources.	\$3,109,349 21
Transferred to city loan account to pay Hyde Park water debt	\$16,000 00
Transferred to city loan account to pay general city debt	391,823 86
Transferred to credit of Collecting Department, Water Service	25,774 00
	<u>433,597 86</u>
	<u>\$2,675,751 35</u>

EXPENDITURES.

Current expense and extensions	\$917,823 64
Interest on loans	87,866 59
Refunded water rates	628 33
Metropolitan water assessment	1,669,432 79
	<u>\$2,657,751 35</u>

SERVICE MAINS AND RELAYING MAINS.

Balance appropriation February 1, 1916	\$135,014 40
Expenditures during fiscal year 1916-17	47,868 21
	<u>\$87,146 19</u>

Details of expenditures under the appropriation for current expenses for the fiscal year ending January 31, 1917:

A. PERSONAL SERVICE.

Division engineer	\$986 78	
Chief engineer	1,200 00	
Engineer in charge	3,468 00	
District engineers and assistants	17,739 45	
Superintendent and deputy	4,985 76	
Clerks, messengers, etc.	53,810 76	
Meter readers	20,553 14	
Telephone operator	780 00	
Physician	166 66	
Veterinary	250 00	
General foremen	4,771 95	
Foremen	17,622 24	
Inspectors	47,558 65	
Inspectors of castings	2,380 00	
Pipe examiners	2,180 50	
Sealers of fire pipes	2,028 00	
Blacksmiths	919 53	
Carpenters	7,825 50	
Chauffeurs	8,075 00	
Electrician	1,171 20	
Emergencymen	13,254 27	
Steam engineer	1,134 00	
Firemen	2,109 67	
Machinists	20,566 24	
Meter repairers and testers	7,476 09	
Pattern maker	1,400 00	
Plumbers and helpers	39,535 61	
Skilled laborers	37,187 24	
Laborers	138,857 09	
Yardmen	5,584 04	
Stablemen	4,108 50	
Storekeepers	2,838 52	
Watchmen	1,732 50	
Military duty	704 83	
Overtime, charges by other divisions, etc.	11,916 87	
		<hr/>
		\$486,878 59

B. SERVICE OTHER THAN PERSONAL.

1. Printing and binding	\$144 85	
2. Postage	474 71	
3. Advertising and posting	313 18	
4. Transportation of persons	3,400 62	
5. Cartage and freight	216 70	
6. Hire of teams	571 50	
8. Light and power	983 46	
10. Rent and taxes	1,808 48	
12. Premium on surety bond	12 50	
13. Communication	1,469 06	
14. Motor vehicle repairs and care	3,599 31	
15. Motorless vehicle repairs	989 84	
16. Care of horses	32 60	
18. Cleaning	27 84	
22. Medical	75 28	
23. Veterinary	293 38	
24. Blacksmith	36 80	
27. Testing materials and supplies	1,408 16	
28. Expert and architect	285 00	
35. Fees, services of venires	187 40	
36. Boiler inspection	10 00	
		<hr/>
Carried forward	\$16,340 67	\$486,878 59

	<i>Brought forward</i>		\$16,340 67	\$486,878 59
37.	Photographic and blueprinting		26 78	
39.	General plant repairs		31,069 01	
40.	Harness repairs		87 50	
41.	Horseshoeing		1,162 41	
				48,686 37

C. EQUIPMENT.

2.	Machinery		\$57 60	
3.	Electrical		92 55	
4.	Motor vehicles		4,853 46	
6.	Stable		326 74	
7.	Furniture and fittings		28 76	
9.	Office		1,253 69	
13.	Tools and instruments		42,013 43	
14.	Live stock		325 00	
16.	Wearing apparel		223 96	
17.	General plant		283 28	
				49,458 47

D. SUPPLIES.

1.	Office		\$6,962 70	
2.	Food and ice		36 38	
3.	Fuel		3,196 62	
4.	Forage and animal		9,998 90	
7.	Veterinary		108 37	
8.	Laundry, cleaning and toilet		89 41	
11.	Motor vehicle		2,792 57	
13.	Chemicals and disinfectants		27 00	
16.	General plant		4,626 66	
				27,838 61

E. MATERIALS.

1.	Building		\$694 88	
6.	Water		195,790 11	
10.	Electrical		542 86	
13.	General plant		1,644 87	
				198,672 72

F. SPECIAL ITEMS.

2.	Damages		\$3,866 05	
7.	Pensions and annuities		34,414 73	
11.	Workingmen's compensation		1,824 30	
12.	Contracts		66,183 80	
				106,288 88
				<u>\$917,823 64</u>

Details of expenditures under appropriation for service mains and relaying mains for the fiscal year ending January 31, 1917. From revenue, orders City Council, approved August 12, 1913, and October 22, 1914.

Laying and relaying water mains		\$36,724 45
Water pipes and castings		5,664 80
Paving		5,478 96
		<u>\$47,868 21</u>

There was also expended by the Water Service, under an appropriation of \$5,000 from the Reserve Fund, \$3,542.62 for ice for drinking fountains. Order City Council, approved June 8, 1915.

AUTOMOBILES.

No. 83. — Emergency Truck.

Registration, etc.,	\$2 00	
Tires and tubes, new and repairs	326 35	
Gasolene, oils, etc.	303 72	
Repairs and supplies	882 49	
Chauffeur's wages	4,382 00	
	<hr/>	
Total		\$5,896 56

No. 90. — General Foreman.

Registration	\$2 00	
Tires and tubes, new and repairs	72 75	
Gasolene, oils, etc.	117 60	
Repairs and supplies	251 05	
	<hr/>	
Total		443 40

No. 96. — Truck, General Work.

Registration	\$2 00	
Tires and tubes, new and repairs	322 70	
Gasolene, oils, etc.	237 65	
Repairs and supplies	281 37	
Chauffeur's wages	1,095 50	
	<hr/>	
Total		1,939 22

No. 98. — Truck, Shut-off Gang.

Registration	\$2 00	
Tires and tubes, new and repairs	64 55	
Gasolene, oils, etc.	218 84	
Repairs and supplies	230 12	
Chauffeur's wages	1,095 50	
	<hr/>	
Total		1,611 01

No. 99. — Truck, West Roxbury District.

Registration	\$2 00	
Tires and tubes, new and repairs	61 30	
Gasolene, oils, etc.	100 14	
Repairs and supplies	193 70	
Storage	87 00	
	<hr/>	
Total		444 14

No. 100. — Engineer in Charge.

Registration	\$10 00	
Tires and tubes, new and repairs	137 00	
Gasolene, oils, etc.	125 99	
Repairs and supplies	569 63	
Storage	36 00	
Chauffeur's wages	1,095 50	
	<hr/>	
Total		1,974 12

Carried forward		\$12,308 45
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Brought forward \$12,308 45

No. 101. — Engineer's Meter Branch and District 2.

Registration	\$13 00	
Tires and tubes, new and repairs	176 92	
Gasolene, oils, etc.	127 85	
Repairs and supplies	594 25	
Total		912 02

No. 102. — Truck, General Work.

Registration	\$2 00	
Tires and tubes, new and repairs	130 31	
Gasolene, oils, etc.	165 48	
Converting to truck	98 60	
Repairs and supplies	449 05	
Chauffeur's wages	858 00	
Total		1,703 44

No. 103. — Foreman, Dorchester District.

Registration	\$10 00	
Tires and tubes, new and repairs	76 12	
Gasolene, oils, etc.	61 26	
Repairs and supplies	179 04	
Total		326 42

No. 105. — Foreman, Brighton District.

Registration	\$10 00	
Tires and tubes, new and repairs	74 65	
Gasolene, oils, etc.	114 47	
Repairs and supplies	67 56	
Total		266 68

No. 107. — Engineer, District No. 1.

Registration	\$12 50	
Tires and tubes, new and repairs	136 84	
Gasolene, oils, etc.	171 44	
Repairs and supplies	248 31	
Total		569 09

No. 108. — Truck, Plumbers'.

Registration	\$2 00	
Tires and tubes, new and repairs	193 13	
Gasolene, oils, etc.	149 02	
Repairs and supplies	243 13	
Total		587 28

No. 109.— Foreman, West Roxbury District.

Registration	\$10 00	
Tires and tubes, new and repairs	24 82	
Gasolene, oils, etc.	88 19	
Repairs and supplies	36 59	
Storage	87 00	
Total		246 60

Carried forward \$16,919 98

PUBLIC WORKS DEPARTMENT.

477

Brought forward \$16,919 98

No. 110.— Spare Roadster.

Registration	\$20 00	
Tires and tubes, new and repairs	253 06	
Gasolene, oils, etc.	130 94	
Repairs and supplies	798 52	
	<hr/>	
Total		1,202 52

No. 111.— Truck, Dorchester District.

New	\$927 94	
Registration	7 00	
Tires and tubes, new and repairs	45 91	
Gasolene, oils, etc.	70 97	
Repairs and supplies	167 05	
Chauffeur's wages	630 00	
	<hr/>	
Total		1,848 87

No. 112.— Truck, Meter Branch.

New	\$496 95	
Registration	10 00	
Tires and tubes, new and repairs	49 93	
Gasolene, oils, etc.	84 94	
Repairs and supplies	82 37	
	<hr/>	
Total		724 19

No. 113.— Truck, Meter Branch.

New	\$496 95	
Registration	10 00	
Tires and tubes, new and repairs	17 17	
Gasolene, oils, etc.	72 53	
Repairs and supplies	87 47	
	<hr/>	
Total		684 12

No. 114.— Foreman, City Proper, South Boston and Roxbury.

New	\$361 60	
Registration	15 00	
Tires and tubes, new and repairs	5 28	
Gasolene, oils, etc.	39 01	
Repairs and supplies	39 14	
	<hr/>	
Total		460 03
General work in garage		441 43

\$22,281 14

Comparative Table of Receipts and Expenditures.

Receipts.

	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.
Sales of water.....	\$2,764,887 76	\$2,730,398 37	\$2,906,569 76	\$2,947,210 88	\$2,923,719 09	\$2,859,707 92	\$3,037,974 66
Other receipts.....	64,168 20	67,690 88	75,674 49	84,389 48	69,922 86	84,977 77	71,374 55
Credited from taxes.....	\$2,829,055 96	\$2,798,089 25	\$2,982,244 25	\$3,031,600 36	\$2,993,641 95	\$2,944,685 69	\$3,109,349 21
Transfers by City Auditor.....	.....	31,777 31	.....	.....	.....	.....	.....
	\$2,829,055 96	\$2,829,866 56	\$2,982,244 25	\$3,031,600 36	\$2,993,641 95	\$2,944,685 69	\$3,109,349 21
Balance, beginning of year.....	.....	† \$11,983 69	\$64,521 97	\$274,580 54	\$340,819 49	\$184,470 24	\$135,014 40
Balance, end of year.....	\$11,983 69	{ † 31,777 31 } { † 32,744 66 }	274,580 54	340,819 49	184,470 24	135,014 40	87,146 19
	* \$11,983 69	\$64,521 97					

Expenditures.

	1910-11.	1911-12.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.
Current expenses.....	\$ 860,676 10	\$ 822,377 46	\$ 835,072 00	\$899,338 91	\$894,170 14	\$904,135 19	\$917,823 64
Service and relaying mains.....	.....	.....	.....	86,945 40	128,584 36	49,455 84	47,868 21
Metropolitan water assessment.....	1,815,658 85	1,825,362 87	1,792,123 83	1,842,127 65	1,676,038 11	1,665,006 20	1,669,432 79
Interest.....	138,460 17	127,280 37	137,875 37	118,673 48	94,615 02	91,259 22	87,866 59
Refunded water rates.....	2,277 15	2,307 58	2,680 28	1,275 97	933 31	738 38	628 33
	\$2,817,072 27	\$2,777,328 28	\$2,767,751 48	\$2,918,361 41	\$2,704,340 94	\$2,710,594 83	\$2,723,610 56

* Taxes. † Revenue. ‡ Transfer.
§ Amount extended for current expenses and extensions; there being no appropriation only

COST OF CONSTRUCTION AND CONDITION OF WATER DEBT.

Cost of construction of waterworks, February 1, 1917	.	\$17,274,932 37
Cost of construction of waterworks, February 1, 1916	.	17,050,801 83
Increase during the year	.	<u>\$224,130 54</u>
Outstanding loans February 1, 1916, at 3½ per cent	\$543,400 00	
Outstanding loans February 1, 1916, at 4 per cent	1,751,550 00	
		<u>\$2,294,950 00</u>
Outstanding loans February 1, 1917, at 3½ per cent	\$433,400 00	
Outstanding loans February 1, 1917, at 4 per cent	1,714,050 00	
		<u>2,147,450 00</u>
Decrease during the year	.	<u>\$147,500 00</u>
The Water Sinking Fund February 1, 1916, was	.	\$1,894,950 00
The Water Sinking Fund February 1, 1917, was	.	1,763,450 00
Decrease during the year	.	<u>\$131,500 00</u>
Net Water Debt February 1, 1916	.	\$400,000 00
Gross Water Debt February 1, 1917	\$2,147,450 00	
Less Sinking Fund February 1, 1917	1,763,450 00	
Net Water Debt February 1, 1917	.	<u>384,000 00</u>
Decrease during the year	.	<u>\$16,000 00</u>
Stock on hand February 1, 1917	.	\$242,712 36
Stock on hand February 1, 1916	.	215,937 12
Increase during the year	.	<u>\$26,775 24</u>
Cochituate Water Sinking Fund Receipts, 1916-17:		
Interest on investments	.	\$61,709 26
Interest on bank deposits	.	2,913 67
		<u>\$64,622 93</u>

COST OF EXISTING WORKS ON JANUARY
31, 1917.

East Boston Reservoir	\$66,103 09
East Boston high service	24,173 26
Pipe yards and buildings	94,832 16
Engineering expenses	57,873 58
Distribution system (additions during year, \$246,477.10),	16,563,950 28
Hyde Park waterworks	468,000 00
	<u>\$17,274,932 37</u>

West Roxbury high service plant abolished May 24, 1916. The cost (\$22,346.56) is therefore dropped from the above table.

WASTE PREVENTION BRANCH.

This force consists of six inspectors under the direction of a chief inspector, and they have been continuously employed in locating and in stopping waste both inside of unmetered premises and generally throughout the distribution system. The consumption for the year being practically that of 1915 is partly due to the effective work of this branch.

Table I.
Waste Prevention.

Premises examined.....	46,908
Special investigations.....	1,231
Waste reports.....	8,713
Re-examined.....	9,442
Found repaired.....	8,494
Not repaired.....	948
Water shut off for waste.....	15

Table II.
Defective Fixtures and Waste.

Tank fixtures leaking.....	4,385
Faucets leaking.....	2,979
Hopper cocks leaking.....	56
Pipes inside leaking.....	332
Pipes outside leaking.....	97
Metered premises with defective fixtures.....	828
Hydrants leaking.....	6
Willful waste.....	30

INCOME BRANCH.

This branch consists of a superintendent, deputy superintendent, twenty-three clerks, twenty-seven meter readers for the reading of 65,000 meters, thirteen inspectors for examination of about 30,000 accounts on annual rates, investigating complaints, etc.

The financial statement of the year shows that the efficiency of this branch has been maintained. The following tables give in detail the operations of the year:

INCOME BRANCH.

Table I.

Statement of Water Rates January 31, 1917.

ACCOUNT OF YEAR.	Amount Assessed.	Amount Abated.	Amount Collected.	Balance Outstanding.
1901.....	\$2,264,845 26	\$46,713 28	.....	.....
1902.....	2,327,996 91	43,706 89	\$2,284,290 02	.....
1903.....	2,386,428 02	58,050 51	2,328,347 51	\$30 00
1904.....	2,391,751 16	38,290 92	2,352,679 94	780 30
1905.....	2,446,978 39	36,093 08	2,410,871 31	14 00
1906.....	2,524,205 25	37,599 28	2,486,605 97	.....
1907.....	2,619,031 00	34,959 33	2,584,071 67	.....
1908.....	2,645,962 55	36,549 98	2,609,023 23	389 34
1909.....	2,694,408 57	48,451 64	2,645,001 13	955 80
1910.....	2,846,000 66	† 117,818 49	2,728,182 17	.....
1911.....	2,863,497 95	† 61,777 95	‡ 2,798,055 28	3,664 72
1912.....	3,001,771 87	41,251 26	2,943,402 48	17,118 13
1913.....	3,004,256 87	37,205 39	2,954,173 62	12,877 86
1914.....	3,034,885 83	23,509 74	2,970,192 76	41,183 33
1915.....	2,960,797 45	14,971 08	2,901,848 41	43,977 96
1916.....	3,127,489 24	12,405 38	2,800,305 64	235,546 58
1917.....	* 438,478 87	898 33	63,991 11	373,589 43

* The statement of water rates for 1917 represents annual accounts only, as the quarterly meter accounts cannot be estimated at this time.

† This amount includes certain city department accounts abated by order of the Mayor.

‡ \$875.11 for Hyde Park water rates do not appear in this column; were not assessed on our books.

Table II.*Estimated Kind and Number of Fixtures in Use January 1, 1917.*

Bathtubs.....	133,690
Bowls.....	172,715
Foot baths.....	156
Sinks.....	237,612
Taps (other than sinks, bowls, etc.).....	44,481
Urinals, automatic.....	6,988
Urinals, otherwise.....	590
Washtubs.....	205,821
Water-closets.....	243,795
Total.....	1,045,848

Table III.*Number and Amount of Abatements Allowed During the Year 1916.*

ON ACCOUNT OF ASSESSMENT FOR YEAR.	Number.	Amount.
1914.....	8	\$259 42
1915.....	186	1,852 21
1916.....	1,240	11,663 08
Totals.....	1,434	\$13,774 71

Table IV.*Applications for New Pipes During the Year 1916.*

Elevators.....	5
Fire pipes.....	293
Service pipes.....	1,377
Total.....	1,675

Table V.*Turning Water Off and On During the Year 1916.*

For complaints (no force, stoppages, etc.).....	391
For repairs of service pipes.....	5,495
For nonpayment of water bills.....	1,126
For waste.....	3
Turned on first time.....	1,504
Vacancies.....	2,068
Total.....	10,587

Table VI.*Motors.*

Under supervision December 31, 1915.....	98
Discontinued during the year.....	6
New motors accepted during the year.....	4
Under supervision December 31, 1916.....	96
Motors on meter.....	22

Table VII.*Elevators.*

Under supervision December 31, 1915.....	534
Discontinued during the year.....	18
Changed to electric.....	12
New elevators accepted during the year.....	6
Under supervision December 31, 1916.....	510
Changed to tank, metered water and now under supervision.....	2
Registering inaccurately.....	46
Clock cords broken and repaired by owner.....	156
Clock hands broken and repaired by owner.....	26

Table VIII.*Fire Pipes.*

Under supervision December 31, 1915.....	1,068
Fire pipes accepted during the year.....	293
Under supervision December 31, 1916.....	1,361
Fire pipe systems inspected during the year.....	4,218
Fire pipe valves inspected during the year.....	55,376
Hydrant valves inspected during the year.....	600
Hydrant valves sealed during the year.....	200
Fire pipe valves sealed during the year.....	4,680

METER BRANCH.

The meter branch has a force which averages about fifty, comprising a general foreman, a foreman for the outside installation, five clerks, twelve plumbers with a corresponding number of assistants, eight meter testers and repairers, etc.

During the year the work of installing meters in compliance with chapter 520 of the Acts of 1907 has continued. In addition to installing 1,209 meters on new service pipes the outside force, comprising sixteen men under the direction of a foreman, has set 5,536 meters on existing service pipes in Wards 11, 13 and 14, and on February 1, 1917, all services in Charlestown, East Boston, South Boston, city proper, Hyde Park, Wards 13 and 14 of Roxbury and Ward 11 of Dorchester are metered. There remains about 27,000 service pipes yet to be metered, which, at the present rate of progress, will be completed in about five years.

METER BRANCH.

Table No. 1.

Statement of Work Done During the Year.

MAKE.	New Sets.	Discontinued.	CHANGED.		Tested.	Repaired in Shop.	Repaired in Service.	Renets.
			In.	Out.				
Hersey disc.....	5,227	612	3,384	3,247	12,906	3,603	429	234
Worthington disc.....	1,597	100	1,070	897	3,667	910	141	149
Crown.....	109	48	249	307	617	283	85	21
Hersey rotary.....	58	22	128	173	302	120	25	18
American.....	52	18	93	194	356	152	12	7
Nash.....	35	12	88	131	248	103	11	1
Lambert.....	18	7	49	83	144	63	15	1
Trident.....	6	2	21	35	80	32	6	1
Keystone.....	3	3	21	35	62	28	2	.....
Empire.....	36	.....	47	18	116	95	3	6
Worthington.....	.....	.....	.....	27	26	.....	.....	.....
Standard.....	.....	.....	.....	1	1	.....	.....	.....
Metropolitan.....	.....	.....	.....	2	1	.....	.....	.....
Hersey detector.....	2	.....	.....	.....	.....	.....	16	.....
Gem.....	.....	1	1	1	2	1	3	.....
Hersey compound.....	1	.....	.....	.....	.....	.....	.....	.....
Union.....	.....	.....	.....	.....	1	1	.....	.....
Totals.....	7,144	825	5,151	5,151	18,529	5,391	688	438

Table No. II.
Meters in Stock February 1, 1917.

MAKE.	DIAMETER IN INCHES.									Totals.
	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8	
Hersey disc.....	1,211	38	14	55	13	18	1	.....	.....	1,350
Worthington disc.....	249	4	.....	.....	1	.....	.....	.....	.....	254
Crown.....	230	106	44	23	27	5	3	4	.....	442
American.....	78	29	.....	.....	.....	.....	.....	.....	.....	107
Hersey rotary.....	71	89	19	21	14	4	1	2	.....	221
Nash.....	51	16	6	4	6	1	.....	.....	.....	84
Lambert.....	34	7	1	1	1	.....	1	.....	.....	45
Trident.....	21	2	3	.....	1	.....	.....	.....	.....	27
Keystone.....	18	11	.....	1	2	2	.....	2	.....	36
Empire.....	13	1	1	1	.....	.....	.....	.....	.....	16
Standard.....	4	.....	.....	1	.....	.....	.....	.....	.....	5
Gem.....	.....	.....	.....	.....	2	4	5	3	.....	14
Hersey detector.....	.....	.....	.....	.....	.....	.....	1	1	2	4
Hersey torrent.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Totals	1,980	303	88	107	67	34	12	13	2	2,606

Table No. III.

Meters in Service February 1, 1917.

MAKE.	DIAMETER IN INCHES.											Totals.
	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	3	4	6	8	12	
Hersey disc.....	42,460	2,844	1,425	1	661	245	108	30	2	...	...	47,776
Hersey rotary.....	324	268	251	....	153	139	53	26	11	...	...	1,225
Hersey detector.....	.....	.....	.....	.....	.....	.....	3	12	20	8	1	44
Crown.....	841	416	357	....	194	168	91	53	11	...	...	2,131
Nash.....	425	226	134	....	40	33	2	...	...	...	...	860
Lambert.....	292	112	73	....	13	17	....	3	...	...	...	510
Trident.....	172	2	2	....	4	4	....	...	1	...	...	185
Worthington.....	1	16	52	....	12	15	2	3	...	...	...	101
Worthington disc....	6,402	38	6	....	....	17	....	...	...	...	...	6,463
Keystone.....	160	74	22	....	1	1	7	....	...	...	...	265
Metropolitan.....	.....	20	2	....	....	....	....	...	...	...	...	22
American.....	940	463	....	....	....	....	....	...	...	...	...	1,403
Worthington turbine,	.....	.....	....	....	....	....	....	1	...	...	...	1
Empire.....	125	2	4	....	6	....	....	...	...	...	...	137
Gem.....	.....	.....	....	....	....	1	....	2	6	...	...	9
Standard.....	7	....	....	....	....	....	....	...	...	...	...	7
B. W. W.....	.....	1	....	....	....	....	....	...	...	...	...	1
Thompson.....	6	2	....	....	....	....	....	...	...	...	...	8
Union.....	2	1	....	....	....	....	....	...	...	...	...	3
Gamon.....	1	....	....	....	....	....	....	...	...	...	...	1
Hersey compound.....	.....	....	....	....	....	....	....	...	2	...	...	2
Totals.....	52,158	4,485	2,328	1	1,084	640	266	130	53	8	1	61,154

Table No. IV.

Meters Purchased.

MAKE.	DIAMETER IN INCHES.							Totals
	$\frac{1}{2}$	1	$1\frac{1}{2}$	3	4	6	8	
Hersey disc.....	5,500	150	50	25	6	....	....	5,731
Hersey detector.....	.....	....	....	....	1	2	2	5
Hersey compound.....	.....	....	....	....	....	2	....	2
Totals.....	5,500	150	50	25	7	4	2	5,738

Table No. V.
Meters Condemned.

MAKE.	DIAMETER IN INCHES.							Totals.
	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{2}$	2	3	4	
Hersey disc.....	72	2	.....	.....	.....	1	.....	75
Worthington disc.....	1	.....	.....	.....	.....	.....	.....	1
Crown.....	16	3	.....	1	.....	11	6	37
Hersey rotary.....	10	.....	1	.....	.....	.....	.....	11
American.....	2	.....	.....	.....	.....	.....	.....	2
Nash.....	6	1	.....	.....	.....	.....	.....	7
Lambert.....	2	.....	.....	.....	1	.....	.....	3
Worthington.....	.....	6	15	4	1	2	.....	28
Empire.....	4	.....	.....	1	.....	.....	.....	5
Metropolitan.....	.....	1	.....	1	.....	.....	.....	2
Totals.....	113	13	16	7	2	14	6	171

Table No. VI.
Meters Repaired in Service.

MAKE.	CAUSES.							Totals.
	Glass Broken.	Clock Broken.	Cover Broken.	Spindle Leak.	Coupling Leak.	Relocated.	Miscellaneous.	
Hersey disc.....	35	41	4	239	75	2	33	429
Worthington disc.....	.....	2	3	124	7	.....	5	141
Crown.....	4	9	.....	7	5	.....	.....	25
Hersey rotary.....	3	8	.....	7	6	.....	1	25
American.....	2	.....	.....	4	3	.....	3	12
Nash.....	1	1	1	6	2	.....	.....	11
Lambert.....	.....	.....	.....	12	3	.....	.....	15
Trident.....	2	2	.....	2	.....	.....	.....	6
Keystone.....	.....	.....	.....	2	.....	.....	.....	2
Empire.....	.....	.....	.....	3	.....	.....	.....	3
Hersey detector.....	3	11	.....	.....	.....	.....	2	16
Gem.....	2	.....	.....	.....	.....	.....	1	3
Totals.....	52	74	8	406	101	2	45	688

Table No. VII.
Meter Changes.

MAKE.	METERS IN.								METERS OUT.								Totals.
	DIAMETER IN INCHES.								DIAMETER IN INCHES.								
	1	1 1/2	1	2	3	4	6	Totals.	1	1 1/2	1	2	3	4	6		
Hersey disc.....	2,267	372	169	88	56	29	3	3,384	2,742	257	114	39	70	24	1	3,247	
Worthington disc.....	1,065	1	1	.....	3	.....	.....	1,070	885	7	3	2	.....	.....	.....	897
Crown.....	108	38	34	26	22	11	4	249	110	69	47	29	29	13	4	307	
Hersey rotary.....	38	27	24	10	19	8	2	128	48	47	31	18	18	10	1	173	
American.....	58	35	.....	.....	.....	.....	.....	93	132	62	.....	.....	.....	.....	.....	194
Nash.....	48	23	10	4	3	.....	.....	88	69	36	18	3	5	.....	.....	131
Lambert.....	34	8	4	2	1	.....	.....	49	56	13	9	3	2	.....	.....	83
Trident.....	19	1	1	.....	.....	.....	.....	21	32	1	2	.....	.....	.....	.....	35
Keystone.....	10	8	2	.....	.....	1	.....	21	18	13	1	1	.....	2	.....	35
Empire.....	46	.....	1	.....	.....	.....	.....	47	15	1	1	.....	1	.....	.....	18
Worthington.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	14	1	4	2	.....	27
Standard.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Metropolitan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....	2
Gem.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	1	1
Totals.....	4,093	513	246	130	104	49	9	5,151	4,108	513	240	96	130	51	6	7	5,151

Table No. VIII.
Causes For Which Meters Were Changed.

MAKE.	Test.	Not Registering.	No Force.	Stoppage.	Enlarged.	Spindle Leak.	Coupling Leak.	Frost.	Set Backwards.	Relocated.	Clock Defaced or Broken.	Leak at Flange.	Miscellaneous.	Totals.
Hersey disc	412	1,066	99	16	13	95	54	754	21	13	419	114	171	3,247
Worthington disc . . .	45	381	15	2	1	154	15	158	9	2	17	84	64	897
Crown	78	111	10	2	4	15	4	10	1	2	49	4	17	307
Hersey rotary	36	85	6	...	3	8	...	8	...	...	21	2	4	173
American	21	96	2	...	...	10	3	15	2	...	39	1	5	194
Nash	29	50	9	2	...	4	...	13	...	...	16	1	7	131
Lambert	13	20	1	...	1	14	4	12	...	...	15	...	3	83
Trident	2	20	...	...	...	3	4	1	...	...	5	...	...	35
Keystone	4	13	1	...	...	1	2	4	...	...	8	1	1	35
Empire	5	4	3	1	...	1	1	2	...	...	...	...	1	18
Worthington	10	4	2	1	...	1	1	...	...	...	7	...	1	27
Standard . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Metropolitan	1	1	...	...	...	...	...	...	...	...	...	...	...	2
Gem . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Totals	656	1,853	148	24	22	306	88	977	33	17	596	157	274	5,151

Table No. IX.

Meters Applied.

MAKE.	DIAMETER IN INCHES.									Totals.
	$\frac{1}{4}$	$\frac{1}{2}$	1	1 $\frac{1}{2}$	2	3	4	6	12	
Hersey disc.....	4,959	118	100	30	10	7	3	...	...	5,227
Worthington disc.....	1,593	2	2	...	...	...	...	...	...	1,597
Crown.....	27	24	35	10	10	1	2	...	...	109
Hersey rotary.....	8	10	20	4	16	...	...	...	...	58
American.....	42	10	...	...	...	...	...	...	...	52
Nash.....	12	14	8	1	...	...	...	...	...	35
Lambert.....	7	6	4	1	...	...	...	...	...	18
Trident.....	2	...	1	2	1	...	...	...	...	6
Keystone.....	2	1	...	...	...	...	...	...	...	3
Empire.....	36	...	...	...	...	...	...	...	...	36
Hersey detector.....	...	...	...	...	...	...	...	1	1	2
Hersey compound.....	...	...	...	...	...	...	...	1	...	1
Totals.....	6,688	185	170	48	37	8	5	2	1	*7,144

* Of this number 453 meters were set in outside boxes; 557 meters were set in ground boxes.

Table No. X.

Meters Owned February 1, 1917.

MAKE.	DIAMETER IN INCHES.											Totals.
	1½	1	1	1½	1½	2	3	4	6	8	12	
Hersey disc.....	43,671	2,882	1,439	1	716	258	126	31	2	...	...	49,126
Hersey rotary.....	395	357	270	...	174	153	57	27	13	...	...	1,446
Hersey detector.....	...	...	...	...	...	...	3	13	21	10	1	48
Crown.....	1,071	522	401	...	217	195	96	56	15	...	...	2,573
Nash.....	476	242	140	...	44	39	3	...	...	...	...	944
Lambert.....	326	119	74	...	14	18	...	4	...	...	...	555
Trident.....	193	4	5	...	4	5	...	...	1	...	...	212
Worthington.....	1	16	52	...	12	15	2	3	...	...	...	101
Worthington disc....	6,651	42	6	...	18	...	...	...	...	...	...	6,717
Keystone.....	178	85	22	...	2	3	9	...	2	...	...	301
Metropolitan.....	...	20	2	...	...	...	...	...	...	...	...	22
American.....	1,018	492	...	...	...	...	...	...	...	...	...	1,510
Worthington turbine..	...	...	...	...	...	...	...	1	...	...	...	1
Hersey torrent.....	...	...	...	...	...	...	...	...	1	...	...	1
Empire.....	138	3	5	...	7	...	...	...	...	...	...	153
Gem.....	...	...	...	...	...	3	4	7	9	...	...	23
Standard.....	11	...	...	...	1	...	...	...	...	...	...	12
B. W. W.....	...	1	...	...	...	...	...	...	...	...	...	1
Thomson.....	6	2	...	...	...	...	...	...	...	...	...	8
Union.....	2	1	...	...	...	...	...	...	...	...	...	3
Gamon.....	1	...	...	...	...	...	...	...	...	...	...	1
Hersey compound.....	...	...	...	...	...	...	...	...	2	...	...	2
Totals.....	54,338	4,788	2,416	1	1,209	689	300	142	66	10	1	63,760

DISTRIBUTION BRANCH.

The organization of this branch is a central yard at 710 Albany street and six outlying yards in East Boston, Charlestown, Brighton, Dorchester, West Roxbury and Hyde Park. The average force comprises 350 men under the direction of a general foreman and seven foremen in charge of districts. At the central yard is a machine shop, plumbing shop, carpenter shop and blacksmith shop. The work done by this branch consists both of construction, including the manufacture of

gates, hydrants, service cocks, etc., and the maintenance of the water system, this calling for a wide variety of important work which must be done quickly and properly under any and all circumstances. To maintain the efficiency of the branch an automobile emergency service has headquarters at 710 Albany street, said service being divided into three shifts with a gang of men on call during the entire twenty-four hours of each day.

The following tables, Nos. 1 to 29, give details of the work done by this branch with cost where the same could be determined.

Table No. 1.— Distribution Branch.
Showing Length of Main Lines of Water Pipes and Connections Owned and Operated by the Public Works Department, Highway Division
(Water Service), and Number of Valves in Same, January 31, 1917.

DIAMETER OF PIPES IN INCHES.																		Totals.
	48	42	40	36	30	28	24	20	16	14	12	10	8	6	4	3	2	
Length owned and operated	10,637	15,476	16,105	37,128	89,337	244	75,562	87,611	251,190	5,021	1,401,111	336,169	781,784	1,271,111	108,878	6,883	5,872	4,500,119
January 31, 1916 (feet)...	8	4	8	18	57	...	66	79	525	20	3,226	1,097	2,510	3,989	614	16	12	12,249
Gate valves in same.....	12	3	7	27	91	2	39	42	45	...	33	2	3	...	...	...	...	306
Air valves in same.....	1	3	3	8	32	...	18	44	60	...	145	37	84	109	55	5	1	605
Blow-offs in same.....																		
Length laid and relaid during																		
year 1916-17.....					2,826		3,690	311	950		28,904	24,571	23,491	1,741	57		247	86,788
Gate valves in same.....					2		4		14		116	85	94	16	5			336
Air valves in same.....					8		6	1			2							17
Blow-offs in same.....					2		2		1		4	8	18	6				41
Length abandoned during																		
year 1916-17.....					168		6	91	656		3,568	1,945	1,716	12,457	2,123	56	397	23,183
Gate valves in same.....								1	2		9	5	7	38	9			71
Air valves in same.....					1						2							3
Blow-offs in same.....											2	6	4	2	2			16
Length owned and operated																		
January 31, 1917 (feet)...	10,637	15,476	16,105	37,128	91,995	244	79,246	87,831	251,484	5,021	1,426,447	358,795	803,559	1,280,395	106,812	6,827	5,722	*4,563,724
Gate valves in same.....	8	4	8	18	59	...	70	78	537	20	3,333	1,177	2,597	3,967	610	16	12	12,514
Air valves in same.....	12	3	7	27	98	2	45	43	45	...	33	2	3	...	...	...	...	320
Blow-offs in same.....	1	3	3	8	34	...	20	44	61	...	147	39	98	113	53	5	1	630

* 864.34 miles in system.

Table No. II.
Statement of Hydrant, Blow-off and Reservoir Pipes.

	DIAMETER IN INCHES.							Totals.
	16	12	10	9	8	6	4	
Total length connected with system January 31, 1916.....	29	5,756	176	1,944	5,453	57,815	6,557	77,774
Length laid and relaid during year.....	.....	25	.....	.....	114	2,181	29	2,349
Length abandoned during year.....	.....	.....	.....	.....	39	521	92	652
Total length connected with system January 31, 1917.....	29	5,781	176	1,944	5,528	59,475	6,494	79,471

Table No. III.

Total Number of Hydrants in System January 31, 1917.

	Lowry.	Boston Lowry.	Boston Post.	Ordinary Post.	Boston.	Chapman Post.	Coffin Post.	Ludlow Post.	Matthews Post.	Totals.
City proper (public).....	550	43	665	181	75	.....	.....	.....	.....	1,514
" (private).....	4	.....	9	6	39	.....	.....	.....	.....	58
Roxbury (public).....	399	68	575	381	30	.....	.....	.....	.....	1,453
" (private).....	2	1	3	2	10	.....	.....	.....	.....	18
West Roxbury (public).....	73	193	558	715	19	.....	.....	.....	.....	1,558
" (private).....	.....	.....	.....	16	1	.....	.....	.....	.....	17
Brighton (public).....	59	64	305	410	14	.....	.....	.....	.....	852
" (private).....	.....	.....	.....	8	2	.....	.....	.....	.....	10
Dorchester (public).....	305	185	731	1,000	24	.....	.....	.....	.....	2,245
" (private).....	.....	1	8	1	4	.....	.....	.....	.....	14
South Boston (public).....	156	32	298	137	25	.....	.....	.....	.....	648
" (private).....	3	.....	.....	15	27	.....	.....	.....	.....	45
East Boston (public).....	52	21	255	169	6	.....	.....	.....	.....	503
" (private).....	8	.....	.....	7	25	.....	.....	.....	.....	40
Charlestown (public).....	112	41	164	29	2	.....	.....	.....	.....	348
" (private).....	13	1	.....	37	5	.....	.....	.....	.....	56
Deer Island (private).....	.....	.....	1	20	.....	.....	.....	.....	.....	21
Long Island (private).....	.....	.....	.....	6	.....	.....	.....	.....	.....	6
Thompson's Island (private).....	.....	.....	.....	2	.....	.....	.....	.....	.....	2
Gallop's Island (private).....	.....	.....	.....	3	1	.....	.....	.....	.....	4
Rainsford Island (private).....	.....	.....	.....	3	1	.....	.....	.....	.....	4
Quincy.....	.....	.....	.....	9	.....	.....	.....	.....	.....	9
Hyde Park (public).....	.....	2	29	204	.....	161	1	10	.....	407
" (private).....	.....	.....	.....	.....	.....	55	.....	13	4	72
Total number (public).....	1,706	649	3,580	3,226	195	161	1	10	.....	9,528
Total number (private and suburban).....	30	3	21	135	115	55	.....	13	4	376

Lowry hydrants are set on the main pipe — the barrel comes to within five inches of the road surface, enclosed in a box whose frame and cover are flush with road surface. To use this style of hydrant a chuck having either one 2½-inch outlet or two 2½-inch outlets and one 4½-inch outlet, each controlled by an independent valve, is connected to Lowry hydrant barrel.

Boston Lowry hydrants are set in the sidewalk; in all other respects they are similar to the Lowry hydrants.

Boston Post hydrants are designed and made in the Water Service Machine Shop, are set in the sidewalk and have two 4½-inch and one 2½-inch outlets controlled by independent valves in addition to a main valve.

Ordinary post hydrants are set in the sidewalk and have one 4½-inch and two 2½-inch outlets without independent valves, the only valve in hydrant being the main valve.

Boston hydrants are the original hydrants used in Boston and consist of a 2½-inch pipe coming to within five inches of street surface controlled by a valve. The number now in service are located in alleys, etc., and are used only for blow-off purposes.

Chapman, Coffin, Ludlow and Matthews post hydrants are commercial hydrants set in Hyde Park and acquired by the Water Service in the annexation of the town of Hyde Park to Boston.

Table No. IV.

*Total Number and Aggregate Length of Service Pipes of Various Sizes
Connected with System January 31, 1917.*

Size.	Total Number.	Aggregate Length in Linear Feet.
$\frac{1}{8}$ -inch.....	6,948	159,190
$\frac{1}{4}$ -inch.....	84,683	2,366,324
$\frac{3}{8}$ -inch.....	3,303	113,678
1-inch.....	5,463	197,441
1 $\frac{1}{4}$ -inch.....	479	14,605
1 $\frac{1}{2}$ -inch.....	1,492	46,134
2-inch.....	2,076	65,525
2 $\frac{1}{2}$ -inch.....	12	267
3-inch.....	907	26,438
4-inch.....	1,902	62,426
6-inch.....	173	22,163
8-inch.....	45	3,175
10-inch.....	11	1,650
12-inch.....	18	3,627
16-inch.....	2	95
Totals.....	107,514	3,082,738

Table No. V.

Fountains in Service January 31, 1917.

	Style B.	Style D.	Style G.	Style H.	Style I.	Style J.	Style K.	Style L.	Style M.	Totals.
City proper.....	.....	.....	.....	7	20	12	.....	7	9	55
Roxbury.....	2	.....	.....	4	2	6	3	1	1	19
West Roxbury.....	.....	1	.....	.....	.....	2	3	1	1	8
Brighton.....	.....	.....	.....	1	.....	.....	2	3	.....	6
Dorchester.....	2	.....	1	1	.....	2	1	1	3	11
South Boston.....	2	.....	.....	2	5	5	1	2	1	18
East Boston.....	3	.....	.....	5	.....	3	.....	1	.....	12
Charlestown.....	3	.....	.....	.....	11	6	.....	1	2	23
Hyde Park.....	1	.....	.....	1	.....	1	.....	.....	2	5
Totals.....	13	1	1	21	38	37	10	17	19	157

FOUNTAIN DESCRIPTION.

- B. Indicates fountain for beasts only. Continuous flow of water during year.
D. Indicates fountain for man and beast. Automatic fixtures for both.
G. Indicates fountain for man and beast. Hygienic bubble fixtures for man. Continuous flow of water for man and beast all the year.
H. Indicates fountain for man only. Water of ordinary temperature. Hygienic bubble fixtures controlled by self-closing cocks. In service during warm weather.
I. Indicates taps on water posts, hydrants and fountains for watering horses.
J. Indicates fountains for man only. Cold water. Hygienic bubble fixtures controlled by self-closing cocks. In service during warm weather.
K. Indicates fountain for man and beast, fitted with automatic fixtures controlled by self-closing cock. Bubble fixture for man in warm weather. Continuous flow for beasts all the year.
L. Indicates fountain for man and beast, bubble fixtures for man and taps fitted for the purpose of filling pails to water horses, continuous flow for beasts all the year.
M. Indicates fountain for beasts only, fitted with taps for the purpose of filling pails to water horses. Continuous flow for beasts all the year.

Table No. VI.
Maintenance of Main Pipe.

NATURE OF WORK.	Number of Jobs.	Total Cost.
Gate boxes renewed.....	541	\$7,307 33
Gates located, inspected (oiled, tested, etc.).....	2,679	626 58
Repaving (including contractor's miscellaneous jobs).....	172	1,014 47
Leaking joints repaired.....	129	1,745 11
Gate boxes cleaned out.....	120	227 34
Gate boxes raised and lowered.....	316	780 87
Gates salted.....	6,766	822 66
Repairs on bridges (on pipes, boxes, etc.).....	8	180 85
Dead ends blown off.....	240	398 57
Gate locations marked.....	10,789	1,472 48
Gates repaired, etc.....	18	122 35
Gates leaking at packing.....	51	179 52
Box tops renewed.....	74	479 27
Work caused by contractors, corporations and other services....	8	428 49
Leaks due to settlement and other causes.....	29	6,077 77
Gates renewed.....	8	392 10
Opening and shutting gates.....	11	44 38
Gate box covers (37) and frames (9) replaced.....	46	157 22
Rotten gate boxes located and inspected.....	496	158 70
Miscellaneous jobs.....	17	140 20
Totals.....	22,518	\$22,756 26

Table No. VII.

Hydrants Established and Abandoned.

	ESTABLISHED.						ABANDONED.						
	Lowry.	Boston Lowry.	Boston Post.	Ordinary Post.	Chapman Post.	Totals.	Lowry.	Boston Lowry.	Boston Post.	Chapman Post.	Ordinary Post.	Boston.	Totals.
City proper.....	2	1	2	32	...	37	18	....	11	...	5	4	38
Roxbury.....	2	...	2	32	...	36	2	1	10	...	8	...	21
West Roxbury.....	1	2	1	73	...	77	....	7	7	...	14	...	28
Brighton.....	1	1	4	21	...	27	....	3	1	...	2	1	7
Dorchester.....	9	3	5	63	...	80	4	13	9	...	2	...	28
South Boston.....	4	1	....	12	...	17	1	....	8	...	5	...	14
East Boston.....	1	...	1	21	...	23	2	....	12	...	3	...	17
Charlestown (private).....	...	...	...	1	...	1	1	....	...	...	...	...	1
Charlestown.....	...	...	1	4	...	5	3	1	1	...	1	...	6
Hyde Park.....	...	1	....	31	1	33	....	1	....	4	1	...	6
Total public.....	20	9	16	289	1	335	30	26	59	4	41	5	165
Total private.....	...	...	....	1	...	1	1	....	....	...	....	...	.1

Table No. VIII.

Hydrant Repairs.

KIND OF WORK AND CAUSES.	Number of Jobs.	Cost.
Boxes raised, lowered, reset, repaired, renewed and pumped out..	1,432	\$13,147 86
Barrels changed, relocated, reset and repaired.....	313	2,247 70
Hydrants thawed.....	69	155 94
Hydrants painted.....	832	117 21
Repairs on account of contractors, corporations and other departments.....	119	350 37
Repaved on account of repairs.....	250	1,139 95
Heavy teaming.....	169	959 46
Hydrants inspected, oiled and cleaned.....	59,022	7,320 36
Number of sacks of salt delivered to Fire Department, 1,830.....	.....	1,464 00
Totals.....	62,206	\$26,902 85

Table No. IX.
Statement of Service Pipes Laid and Abandoned.

SIZES OF SERVICES LAID AND ABANDONED.	CITY PROPER.		ROXBURY.		WEST ROXBURY.		BRIGHTON.		DORCHESTER.		SOUTH BOSTON.		EAST BOSTON.		CHARLES- TOWN.		HYDE PARK.		BOSTON HARBOR.		TOTALS.	
	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.	Number of Services.	Length in Feet.
1-inch laid.....	45	924	63	1,579	282	6,329	118	2,914	453	10,627	22	563	23	444	2	15	67	1,213	.....	.....	2	15
1-inch abandoned.....	90	1,884	31	919	8	118	5	118	19	199	9	250	6	133	2	44	1	34	.....	.....	1,075	24,637
1-inch laid.....	18	416	7	181	4	83	17	460	21	697	6	157	2	77	3	75	4	118	.....	.....	172	3,730
1-inch abandoned.....	4	195	3	49	1	30	.....	.....	1	18	1	30	1	33	.....	.....	1	18	.....	.....	79	2,189
1-inch laid.....	59	1,464	20	706	2	90	36	1,029	7	128	3	59	.....	.....	2	62	2	36	.....	.....	12	373
1-inch abandoned.....	12	311	4	128	2	188	.....	.....	1	48	2	84	.....	.....	1	38	33	787	.....	.....	131	3,578
1 1/4-inch laid.....	10	270	.....	.....	.....	.....	4	185	2	67	.....	.....	.....	.....	2	6	.....	.....	.....	.....	51	1,456
1 1/4-inch abandoned.....	.....	.....	.....	.....	.....	.....	1	110	1	150	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22	656
1 1/4-inch laid.....	16	443	1	37	2	49	.....	110	3	38	6	192	.....	.....	.....	.....	.....	.....	.....	.....	2	280
1 1/4-inch abandoned.....	4	97	.....	.....	.....	.....	1	110	1	30	1	24	.....	.....	.....	.....	.....	.....	.....	.....	29	869
2-inch laid.....	17	530	4	122	.....	.....	3	40	4	192	4	82	3	88	2	4	.....	.....	.....	.....	6	151
2-inch abandoned.....	1	22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37	1,058
3-inch laid.....	5	121	2	19	.....	.....	.....	.....	1	17	3	36	.....	.....	1	35	.....	.....	.....	.....	1	22
3-inch abandoned.....	2	38	.....	.....	.....	.....	4	90	6	63	20	415	2	84	2	54	2	33	.....	.....	12	228
4-inch laid.....	211	3,971	20	482	.....	.....	.....	.....	.....	.....	2	49	.....	.....	.....	.....	1	24	.....	.....	3	60
4-inch abandoned.....	7	152	1	197	.....	.....	1	69	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	267	5,192
6-inch laid.....	2	90	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	176
6-inch abandoned.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	405
8-inch laid.....	2	117	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	130
8-inch abandoned.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10-inch laid.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	223	.....	.....	.....	.....	.....	.....	1	223
10-inch abandoned.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12-inch laid.....	1	56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	56
12-inch abandoned.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total laid.....	386	8,406	122	3,451	290	6,551	184	4,897	497	11,829	66	1,553	31	916	12	218	75	1,400	.....	.....	1,663	39,221
Total abandoned.....	120	2,699	34	968	11	336	6	228	23	445	14	410	7	169	6	128	36	863	.....	.....	257	6,243
Net increase.....	266	5,707	88	2,483	279	6,215	178	4,669	474	11,384	52	1,143	24	750	6	90	39	537	.....	.....	1,406	32,978

Table No. X.
Cost of New Service Pipes Laid.

SIZE.	Number.	Length in Feet.	Material.	Labor, Teaming, etc.	Repaving.	Blasting.	Total Cost.	Average Cost per Service.	Average Cost per Linear Foot.
1-inch..	804	19,417	\$8,844 80	\$10,567 27	\$876 49	\$705 00	\$20,993 56	\$26 11	\$1 08
1½-inch..	59	1,593	961 74	858 06	56 61	.....	1,876 41	31 80	1 18
1-inch..	80	2,260	1,700 48	1,172 11	23 84	.....	2,896 43	36 21	1 28
1½-inch...	7	289	182 96	143 92	.....	.....	326 88	46 70	1 13
1½-inch...	7	338	234 55	142 36	8 88	.....	385 79	55 11	1 14
2-inch...	13	430	662 40	195 31	.....	.....	857 71	65 98	1 99
3-inch...	5	89	258 85	170 78	65 54	.....	495 17	99 03	5 56
4-inch...	252	4,880	13,055 34	10,707 91	2,413 06	144 00	26,320 31	104 44	5 39
6-inch...	4	356	273 88	234 47	24 70	.....	533 05	133 26	1 50
8-inch...	2	90	193 53	96 12	.....	.....	289 65	144 83	3 22
10-inch *..	1	223	.....	.....	.....	.....	.....	.....	.....
	1,234	29,965	\$26,368 53	\$24,288 31	\$3,469 12	\$849 00	\$54,974 96		
1-inch †..	12	120	33 56	63 50	6 85	19 50	123 41		
1-inch †..	4	57	21 72	24 81	.....	.....	46 53		
1-inch †..	1	8	1 53	6 72	.....	.....	8 25		
Totals..	1,234	30,150	\$26,425 34	\$24,383 34	\$3,475 97	\$868 50	\$55,153 15		

* This 10-inch pipe was a main that was changed into a service for the Metropolitan Coal Company at East Boston.

† These services were formerly laid to vacant lots, and have been previously counted in the number of services laid.

‡ These are existing services where the pipe was extended to connect with new mains in street, etc.

Table No. XI.
Cost of Service Pipes Abandoned and Plugged.

SIZE.	Number.	Length in Feet.	Material.	Labor, Teaming, etc.	Repaving.	Total Cost.	Credit (Stock Returned).	Net Total Cost.	Average Cost per Service.	Average Cost per Linear Foot.
1-inch.....	47	1,075	\$12 17	\$310 75	\$15 00	\$337 92	\$91 74	\$246 18	\$5 24	\$0 23
1-inch.....	5	71	1 56	28 24	3 66	33 46	14 28	19 18	3 83	27
1½-inch.....	1	150	38	1 59	.....	1 97	1 96	01	.....	.....
2-inch.....	1	22	1 45	17 50	.....	18 95	17 42	1 53	1 53	07
3-inch.....	3	60	9 98	54 49	.....	64 47	15 01	49 46	16 48	82
4-inch.....	2	55	10 03	47 04	16 04	73 11	1 38	71 73	35 86	1 30
Totals....	59	1,433	\$35 57	\$459 61	\$34 70	\$529 88	\$141 79	\$388 09		

Table No. XII.

Cost of Laying New Services, Excavating and Backfilling Done by Applicant.

Size.	Number.	Length in Feet.	Material.	Labor.	Teaming.	Total Cost.	Average Cost per Service.	Average Cost per Linear Foot.
1/4-inch.....	199	3,957	\$1,913 11	\$281 71	\$223 27	\$2,418 09	\$12 15	\$0 61
3/4-inch.....	9	293	133 59	16 02	11 76	161 37	17 93	55
1-inch.....	8	181	138 30	20 42	7 95	166 67	20 83	92
1 1/4-inch.....	4	102	98 09	13 24	7 23	118 56	29 64	1 16
1 1/2-inch.....	14	227	291 18	38 84	15 39	345 41	24 67	1 52
2-inch.....	7	89	150 34	17 53	7 92	175 79	25 11	1 93
3-inch.....	2	26	94 69	22 75	3 18	120 62	60 31	4 64
4-inch.....	11	277	563 64	101 39	19 51	684 54	62 32	2 47
6-inch.....	2	49	142 49	70 01	4 61	217 11	108 55	4 43
12-inch.....	1	56	160 05	.....	2 22	162 27	162 27	2 90
Totals.....	257	5,257	\$3,685 48	\$581 91	\$303 04	\$4,570 43		

Table No. XIII.

Cost of Service Pipes, Replacing Others.

Size.	LAID.		ABANDONED AND PLUGGED.		Material.	Labor, Teaming, etc.	Repaving.	Blasting.	Total Cost.	Average Cost per Service.	Average Cost per Linear Foot.
	Number.	Length in Feet.	Number.	Length in Feet.							
1/4-inch.....	.....	.....	2	15	.....	.....	.....	.....	.....	.....	.....
1/2-inch.....	72	1,135	125	2,655	\$528 46	\$709 17	\$6 06	\$27 50	\$1,271 19	\$17 66	\$1 12
3/4-inch.....	11	246	12	373	108 64	132 23	13 13	.....	254 00	23 09	1 03
1-inch.....	43	1,137	46	1,385	609 82	705 90	211 64	.....	1,527 36	35 52	1 34
1 1/4-inch.....	10	265	1	110	201 07	202 11	13 27	.....	416 45	41 64	1 57
1 1/2-inch.....	9	304	6	151	292 17	199 98	37 78	.....	529 93	58 88	1 74
2-inch.....	17	539	.....	.....	737 54	541 14	117 68	.....	1,396 36	82 14	2 59
3-inch.....	5	113	.....	.....	224 15	189 28	.....	.....	413 43	82 69	3 66
4-inch.....	4	35	6	121	152 54	182 08	5 06	.....	339 68	84 92	9 17
8-inch.....	1	40	.....	.....	89 80	98 65	.....	.....	188 45	188 45	4 17
Totals.....	172	3,814	198	4,810	\$2,944 19	\$2,960 54	\$404 62	\$27 50	\$6,336 85		

Table No. XIV.
Service Pipe Repairs.

CAUSES.	Number of Jobs.	Cost.
Boxes established, repaired, regulated and renewed.....	147	\$593 36
Cocks repaired and regulated.....	75	653 49
Church cocks replaced with sidewalk cocks.....	84	359 58
Sidewalk cocks established.....	12	103 88
Gates defective.....	5	163 35
Eaten by electrolysis and ashes and gnawed by rats.....	19	346 58
Defective pipes.....	785	10,006 05
Pipes regulated.....	6	51 09
Repairs on account of contractors, corporations and other de- partments.....	497	2,225 30
Frost.....	27	575 69
Heavy teaming.....	36	248 03
Repaved on account of repairs.....	365	2,237 79
Rust, dirt and fish.....	673	2,809 32
Uprights established, renewed, repaired, relocated, regulated and oiled.....	3,833	1,637 41
Letting on and shutting off water.....	8,818	11,151 52
Investigations.....	821	2,756 29
Totals.....	16,203	\$35,918 73

Table No. XV.

Fountains Changed, 1916.

ESTABLISHED.	ABANDONED.
Style.	Style.
J. Hyde square.	K. Hydesquare.
J. Dudley street at Dunmore street.	J. Dudley street, at Dunmore street.
M. Adams street, at Neponset avenue.	B. Adams street, at Neponset avenue.
M. Eliot square.	B. Eliot square.
J. 1661 Blue Hill avenue.	H. 1661 Blue Hill avenue.
M. Blue Hill avenue, at Grove Hall.	H. Blue Hill avenue, at Grove Hall.
L. Oak square.	L. Oak square.
M. Haymarket square.	B. Haymarket square.

New Fountains Established During Year 1916.

Style.
L. Post Office square.
J. Washington street at Grove street, West Roxbury.

Abandoned During Year 1916.

Style.
J. North End Park Beach.
J. Forest Hills square.
B. Washington street at River street, Dorchester.
H. Fourth street at Dorchester street.

For fountain description, see Table No. V.

Cost of Establishing and Abandoning Fountains.

NUMBER.	Material.	Labor and Teaming.	Cost.
Two established.....	\$209 91	\$209 88	\$419 79
Four abandoned.....			

Table No. XVI.

Fountain Repairs, 1916.

CAUSE.	Number of Jobs.	Cost.
Hit by team.....	39	\$263 71
Fountain service pipe leaking.....	114	647 95
Putting lanterns on trench jobs.....	15	54 06
Drain full of dirt.....	59	314 07
Handles broken.....	14	41 01
Shut off and let on for season.....	65	84 88
Cocks broken.....	44	182 59
Fountains frozen.....	5	25 60
Repaired ice box.....	5	26 86
Attached cocks to post hydrants.....	47	129 30
Change locations.....	1	7 99
Reconstructed.....	1	126 33
Put in new grating.....	2	7 75
Bad paving.....	3	9 48
Totals.....	414	\$1,921 67

Table No. XVII.

Water Posts Established and Abandoned, 1916.

ESTABLISHED.		ABANDONED.	
Milk street, at Atlantic avenue. Dorchester avenue, at D street.		Central street, at Atlantic avenue. Commonwealth avenue, at Hereford street. Commonwealth avenue, at Fairfield street.	
NUMBER.	Material.	Labor and Teaming.	Total Cost.
Two established.....	\$8 49	\$12 18	\$30 67
Three abandoned.....			

Table No. XVIII.

Water Post Repairs.

CAUSES.	Number of Jobs.	Cost.
Decayed boxes.....	8	\$129 26
Valves leaking.....	17	53 53
Shut off and let on.....	50	57 02
Hit by team.....	9	33 20
Boxes above grade.....	3	9 64
Car sprinkler cover broken.....	1	5 31
Bad paving.....	5	20 23
Posts leaking at base.....	6	10 98
Totals.....	99	\$319 17

Table No. XIX.

Meters Set for Meter Branch.

NUMBER SET.		Size.	Cost of Material.	Cost of Labor, Teaming and Car Fare.	Total.
Outside.	Inside.				
36.....	.....	1-inch	\$192 57	\$177 36	\$371 93
	102	1-inch	7 91	175 87	183 78
5.....	.....	1-inch	28 31	29 50	57 81
	1	1-inch	.....	88	88
2.....	.....	1-inch	19 42	.....	19 42
	1	1-inch	5 74	17 19	22 93
2.....	.....	1 1/2-inch	18 25	14 79	33 04
1.....	.....	1 1/2-inch	.....	2 63	2 63
6.....	.....	2-inch	52 23	23 53	75 76
1.....	.....	3-inch	10 62	17 44	28 06
2.....	.....	4-inch	18 18	37 09	55 27
1.....	.....	6-inch	15 44	8 07	23 51
	1	6-inch	34 54	3 21	37 75
56	105	.....	\$403 21	\$509 56	* \$912 77

* Above exclusive of cost of meters.

Table No. XX.
Meter Repairs for Meter Branch, 1916.

CAUSES.	Number of Jobs.	Cost.
Meters leaking.....	94	\$251 67
Decayed boxes.....	220	2,611 97
Put to grade.....	44	171 79
Frozen.....	14	24 88
Repair and reset frames and covers.....	35	114 22
Bad paving.....	109	520 30
Meters changed and relocated.....	61	199 40
Abandoned box.....	1	3 37
No force.....	1	14 61
Totals.....	590	\$3,939 80

Table No. XXI.
Machine Shop.
Stock Manufactured from the Rough.

KIND.	Number.	Labor.	48 per Cent Added.	Stock.	Cost Each.	Total Cost.
Ordinary post hydrant, No. 2.....	225	\$10 71	\$15 85	\$23 28	\$39 13	\$8,804 25
3-inch blow-off hydrants.....	13	7 13	10 55	8 58	19 13	248 69
4-inch gates.....	175	5 74	8 49	7 37	15 86	2,775 50
6-inch gates.....	105	7 48	11 06	13 74	24 80	2,604 00
8-inch gates.....	97	8 69	12 85	20 88	33 73	3,271 81
10-inch gates.....	49	12 62	18 67	31 04	49 71	2,435 79
12-inch gates.....	108	14 40	21 30	40 08	61 38	6,629 04
16-inch gates.....	2	28 62	42 35	51 44	93 79	187 58
$\frac{1}{2}$ -inch sidewalk cocks.....	1,885	60	89	96	1 85	3,487 25
$\frac{1}{4}$ -inch sidewalk cocks.....	50	72	1 07	1 16	2 23	111 50
1-inch sidewalk cocks.....	128	84	1 24	86	2 10	268 89
$\frac{1}{2}$ -inch corporation cocks.....	1,852	44	65	35	1 00	1,852 00
$\frac{1}{4}$ -inch corporation cocks.....	62	58	86	54	1 40	86 60
1-inch corporation cocks.....	65	69	1 02	96	1 98	128 70
1 $\frac{1}{2}$ -inch corporation cocks.....	25	85	1 26	1 45	2 71	67 75
1 $\frac{1}{4}$ -inch corporation cocks.....	154	1 06	1 57	1 90	3 47	534 38

Machine Shop.—Continued.**Stock Manufactured from the Rough.—Concluded.**

KIND.	Number.	Labor.	48 per Cent Added.	Stock.	Cost Each.	Total Cost.
$\frac{1}{2}$ -inch combination coupling.....	32	\$0 16	\$0 24	\$0 25	\$0 49	\$15 68
1 $\frac{1}{2}$ -inch combination coupling.....	25	26	38	78	1 16	29 00
2-inch combination coupling.....	25	28	41	1 09	1 50	37 50
$\frac{1}{2}$ -inch coupling nuts.....	1,877	02	03	05	08	150 16
$\frac{1}{2}$ -inch coupling nuts.....	200	04	06	09	15	30 00
1-inch coupling nuts.....	200	05	07	15	22	44 00
1 $\frac{1}{2}$ -inch coupling nuts.....	102	09	13	31	44	44 88
$\frac{1}{2}$ -inch coupling nuts.....	115	02	03	04	07	8 05
$\frac{1}{2}$ -inch coupling tubes.....	6,068	02	03	04	07	424 76
$\frac{1}{2}$ -inch coupling tubes.....	416	04	06	08	14	58 24
1-inch coupling tubes.....	165	05	07	12	19	31 35
2-inch air cocks.....	37	2 45	3 63	5 66	9 27	342 99
$\frac{1}{2}$ -inch male couplings.....	776	03	04	10	14	108 64
2-inch male couplings.....	10	16	24	60	84	8 40
1-inch solder nipples.....	47	07	10	15	25	11 75
$\frac{1}{2}$ -inch bent couplings.....	194	08	12	32	44	85 36
1-inch bent couplings.....	50	17	25	52	77	38 50
1 $\frac{1}{2}$ -inch bent couplings.....	36	24	36	1 07	1 43	51 48
Hydrant wastes.....	271	22	33	27	60	162 60
1-inch meter bushings.....	50	09	13	24	37	18 50
Installing bushings in sidewalk uprights...	2,518	04	06	47	53	1,334 54
4-inch jointer.....	7	14	21	95	1 16	8 12
12-inch jointer.....	2	35	52	1 58	2 10	4 20
						\$36,542 54

Table No. XXII.

Machine Shop.— Continued.
Stock Repaired.

	Number.	Total Cost.
4-inch gate.....	4	\$8 52
6-inch gate.....	27	49 13
8-inch gate.....	6	34 90
12-inch gate.....	12	47 58
16-inch gate.....	2	20 13
4-inch Smith gates.....	2	3 61
3-inch B. O. hydrants.....	1	1 02
Lowry hydrants.....	62	329 09
Boston Lowry hydrants.....	17	55 95
Boston post hydrants.....	27	174 83
Batchelder hydrants.....	15	102 77
Ordinary post hydrants.....	37	158 19
Meters repaired (various makes).....	124	115 85
½-inch coupling nuts (service pipe stock).....	270	7 86
Total.....		\$1,110 03

Table No. XXIII.

Machine Shop.— Concluded.
Miscellaneous Work.

	Number.	Total Cost.
Made face plates.....	3	\$111 07
Made 4½-inch cap taps for hydrants.....	2	43 98
Made taps for 12-inch gate.....	2	34 08
Put steel coverings on posts in wagon shed (710 Albany street).....		31 52
Consigning stock to junk (labor only).....		30 72
Made tape cleaning machine.....	1	29 35
Repaired gears for Sanitary Service.....	2	6 13
Repaired drilling machine box.....	1	4 34
Accommodation work for High Pressure Service.....		2 09
Repaired tool house for Brighton yard.....	1	2 88
Total.....		\$296 16

Table No. XXIV.

Blacksmith Shop.

Repaired 2,519 tools	\$992 50
Sharpened 5,506 picks, 860 bars and 1,666 chisels	911 48
Made 140 new tools	154 63
Repaired fence, East Boston yard	14 79
Repaired 8 wagons, buggies, etc.	10 48
Repaired fence, East Boston Reservoir	4 50
Repaired stall in stable, 710 Albany street	1 96
Total	<u>\$2,090 34</u>

Table No. XXV.

Carpenter Shop.

Stock Manufactured.

	Number.	Total Cost.
Boston hydrant boxes at \$4.77	21	\$100 17
Deacon meter boxes at \$5.43	10	54 30
Large gate boxes at \$5.43	30	162 90
Lowry hydrant boxes at \$5.10	66	336 60
Meter boxes at \$4.97	109	541 73
Post hydrant boxes at \$5.65	42	237 30
Small gate boxes at \$4.32	432	1,866 24
Boston Lowry hydrant boxes at \$6.95	38½	267 57
Tops for Boston hydrant boxes at \$0.66	6	3 96
Tops for large gate boxes at \$0.66	39	25 74
Tops for Lowry hydrant boxes at \$0.77	30	23 10
Tops for post hydrant boxes at \$0.77	36	27 72
Tops for small gate boxes at \$0.60	108	64 80
Ground meter boxes at \$0.50	275	137 50
Pieces for raising Boston hydrant boxes at \$0.08 per inch	90 in.	7 20
Pieces for raising large gate boxes at \$0.08 per inch	550 in.	44 00
Pieces for raising Lowry hydrant boxes at \$0.08 per inch	2,171 in.	173 68
Pieces for raising meter boxes at \$0.08 per inch	1,289 in.	103 12
Pieces for raising small gate boxes at \$0.08 per inch	4,454 in.	356 32
Wedges for main pipe work and concrete boxes	2,806	40 00
Plugs for main pipe work	11	35 17
Made 2,227 brackets and 4,281 shelves for meter department	6,508	204 06
Made 52 wooden horses	52	46 15
Made 2-inch plugs for storeroom	60	4 57
Made stakes (3 feet 6 inches long) for marking gate locations	51	7 03
Total		<u>\$4,870 93</u>

Table No. XXVI.

Carpenter Shop.

Miscellaneous.

Fitting up top floor for new storeroom, 710 Albany street	\$1,081 06
Repairs in Dorchester yard on stables, buildings, etc.	1,028 96
Fitting up a modern shop for Dorchester yard	1,020 03
Altered wagon shed for a garage, Dorchester yard	853 52
Repaired 314 tools	287 14
Repairs in Charlestown yard on stables, buildings, etc.	242 06
Repairs in stables and wagon sheds, 710 Albany street	210 61
Repairs in storeroom, 710 Albany street	192 49
Repaired wagon scales in yard, 710 Albany street	184 32
Repairs in Brighton yard on stables, buildings, etc.	184 20
Repairs in West Roxbury yard on stables, buildings, etc.	149 40
Made 89 new tools	131 60
Repairs in East Boston yard on stables, buildings, etc.	72 51
Work done for engineering branch	64 49
Repairs in machine shop, 710 Albany street	61 24
General repairs at Albany street yard	51 45
Work done for meter branch, 710 Albany street	42 61
Work done for income office, City Hall Annex	42 43
Repairs in office, etc., 710 Albany street	36 78
Made and set 4 new reservoir covers	23 22
Nine wagon repairs	12 35
Repaired ice fountain forms	12 00
Repairs in pattern shop, 710 Albany street	8 66
Accommodation work for High Pressure Service	8 65
Repairs in plumbing shop, 710 Albany street	4 35
Miscellaneous work	37 69
Total	<u>\$6,043 82</u>

Table No. XXVII.

Pattern Shop.

Repaired 76 patterns	\$1,269 73
Made 39 new patterns	934 80
Shellacking small patterns	20 63
Total	<u>\$2,225 16</u>

Table No. XXVIII.

Plumbing Shop.

Installing heating plant, etc., at Dorchester yard	\$427 67
Miscellaneous repairs and work at Dorchester yard	310 51
Installed hot water heater and boiler at West Roxbury yard,	241 80
Made 18 new tools	147 63
Installed sink in new storeroom, 710 Albany street	74 28
Miscellaneous repairs in yard, shops and office, 710 Albany street	63 28
Repaired 16 tools	42 92
Soldered 37 new air cocks	20 61
Repaired 5 pumps	8 64
Miscellaneous work on fountains	19 09
Total	<u>\$1,356 43</u>

Table No. XXIX.

Miscellaneous.

Eighteen hundred and twenty-one inspections of patch paving	\$1,573 55
Electrical and other repair work done in Dorchester yard	683 01
Flushing streets for Street Cleaning Service	575 38
Repairs in, cleaning snow, electrical and miscellaneous work, East Boston district	501 96
Removal of snow (accommodation work)	415 41
Wiring building at 710 Albany street (labor only, job not completed)	387 90
Delivering water to contractors, corporations and other services	316 59
Piling 30-inch pipe at Albany street yard	223 11
Setting new post hydrant at Mystic Wharf, Charlestown	219 18
Repair work done (caused by High Pressure Service)	194 41
General repairs (electrical, painting, etc.), 710 Albany street,	165 62
Work on mains on account of contractor's work (blasting, etc.)	129 23
Deacon meter boxes removed (8)	106 65
Repairs on sidewalk, 710 Albany street	96 32
Wiring new store room, 710 Albany street	94 74
Electrical and other accommodation work done for Paving Service	81 45
Removing concrete and brick wall, West Roxbury water tower, Mt. Bellevue	78 22
Repaired scale walls at 710 Albany street	76 35
Electrician repaired 4 gasoline pumps	66 69
Repaired Ludlow hydrant for Port Directors	63 53
Pumping out cellars on 4 locations	32 27
Abandoned one reservoir gate, Dock square and Friend street,	16 33
General work around Brighton yard	11 79
Repaired electric heater for South End sewer yard	3 54
Miscellaneous work	79 71
Total	<u>\$6,192 94</u>

Cost of Extension of Main Pipe.

Street.	Location.	District	Size. (Inch.)	Feet.	Cost.	Remarks.
Sprague place.....	From Sprague street.....	Hyde Park.	4	27	\$45 30	Private, unconstructed.
Cowper street.....	Rice and Wadsworth streets.....	East Boston.	6	61	184 38	Private, unconstructed.
Mascot street.....	Ballou avenue and Norfolk street.....	Dorchester.	6	106	281 35	Private, unconstructed.
Archdale road.....	North side from Washington street.....	West Roxbury.	6	25	82 89	Private, unconstructed.
Archdale road.....	From Washington street.....	West Roxbury.	6	363	427 51	Private, unconstructed.
Commonwealth avenue.....	Opposite 1091.....	Brighton.	6	22	77 27	Public, macadam.
Lorraine terrace.....	From Warren street.....	Brighton.	6	157	485 61	Private, unconstructed.
Tibbetts Town way.....	South Eden and Mills streets.....	Charlestown.	6	113	184 08	Public, granite block, gravel base.
Washington-street place....	From Washington street.....	Hyde Park.	6	113	114 31	Private, unconstructed.
	Totals.....		6	960	\$1,837 40	
Charles River place.....	From Charles street.....	City Proper.	8	117	\$650 62	Private, unconstructed.
Edinboro' street.....	Essex and Beach streets.....	City Proper.	8	280	782 62	Public, asphalt.
Hudson street.....	From Beach street.....	City Proper.	8	140	531 10	Public, granite block.
Lincoln street.....	Tufts and Beach streets.....	City Proper.	8	314	706 71	Public, granite block, gravel base.
Province court.....	From Province street.....	City Proper.	8	33	111 73	Public, granite block.
South street.....	Beach and Tufts streets.....	City Proper.	8	170	735 85	Granite block, gravel base.
South street.....	Beach and Kneeland streets.....	City Proper.	8	148	231 79	Public, granite block, gravel base.
Tyler street.....	From Beach street.....	City Proper.	8	138	283 87	Public, asphalt.
West Hill place.....	Charles Street and Charles River Embankment.	City Proper.	8	191	551 40	Private, unconstructed.

Lillian street.....	From Bayswater street.....	East Boston.	8	18	41 47	Public, unconstructed.
Binney street.....	From Longwood avenue.....	Roxbury.	8	191	462 34	Private, unconstructed.
Cedric street.....	Magazine and Langdon streets.....	Roxbury.	8	522	831 30	Public, unconstructed.
Clapp street.....	From Norfolk avenue.....	Roxbury.	8	175	538 57	Public, unconstructed.
Hubert street.....	Westminster street and Shawmut avenue.....	Roxbury	8	102	206 43	Public, unconstructed.
Randall street.....	Harrison avenue and Fellows street.....	Roxbury.	8	310	359 89	Public, macadam.
St Mary's street.....	Medfield street and railroad.....	Roxbury.	8	230	688 66	Private, unconstructed.
Westminster road.....	Walnut park and Westminster avenue.....	Roxbury.	8	353	909 01	Public, under construction.
Arbutus street.....	Lucerne and Irma streets.....	Dorchester.	8	244	393 86	Private, unconstructed (rock).
Bispham street.....	From Park street.....	Dorchester.	8	66	329 44	Public, macadam.
Brunswick street.....	From Normandy street.....	Dorchester.	8	28	60 46	Public, under construction.
Caspian way.....	Castle Rock street and Savin Hill avenue....	Dorchester.	8	210	793 45	Public, under construction (rock).
Chelmsford street.....	Adams and Charlemont streets.....	Dorchester.	8	196	309 49	Private, unconstructed.
Collins street.....	From Blue Hill avenue.....	Dorchester.	8	350	1,095 20	Private, unconstructed (rock).
Courtland street.....	From Harvard street.....	Dorchester.	8	24	86 99	Private, unconstructed.
Courtland street.....	From Morton street.....	Dorchester.	8	178	449 33	Private, unconstructed.
Crowell street.....	Norfolk avenue and Evans street.....	Dorchester.	8	643	1,118 21	Private, unconstructed.
Elmdale street.....	From Adams street.....	Dorchester.	8	66	254 83	Private, unconstructed.
Estella street.....	From Harvard street.....	Dorchester.	8	23	85 02	Private, unconstructed.
Estella street.....	Harvard and Morton streets.....	Dorchester.	8	408	1,462 70	Private, unconstructed (rock).
Foss road.....	Beaumont and Elm streets.....	Dorchester.	8	435	803 68	Private, unconstructed.
	Carried forward.....		.....	6,303	\$15,866 02	

Cost of Extension of Main Pipe.— Continued.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost.	Remarks.
	<i>Brought forward.</i>			6,303	\$15,866 02	
Grant place.....	From Washington street.....	Dorchester.	8	387	649 27	Private, unconstructed (rock).
Greenwood street.....	Fowler and Elmo streets.....	Dorchester.	8	186	436 66	Public, macadam.
Harvest terrace.....	From Harvest street.....	Dorchester.	8	159	297 28	Private, gravel surface.
Harwood street.....	Willowwood and Lucerne streets.....	Dorchester.	8	365	723 92	Private, unconstructed (rock).
Levant street.....	From Geneva avenue.....	Dorchester.	8	54	172 68	Private, unconstructed.
Levant street.....	From Geneva avenue.....	Dorchester.	8	98	263 40	Public unconstructed.
Lithgow street.....	Talbot avenue and Wainwright street.....	Dorchester.	8	543	904 40	Public, unconstructed.
Menton street.....	From Standard street.....	Dorchester.	8	238	482 69	Private, unconstructed.
Moody street.....	From Roanoke road.....	Dorchester.	8	466	954 03	Private, unconstructed (rock).
Mt. Ida road.....	From Marie street.....	Dorchester.	8	78	95 51	Private, unconstructed (rock).
Parker terrace.....	From Ashmont street.....	Dorchester.	8	186	493 14	Private, unconstructed.
Ripley road.....	Vassar and Harvard streets.....	Dorchester.	8	301	639 05	Public, under construction.
Rosemont road.....	Dorchester avenue and Florida street.....	Dorchester.	8	783	1,359 63	Public, unconstructed.
Sharp street.....	From Allston street.....	Dorchester.	8	189	387 48	Private, unconstructed.
Southwick street.....	Freeport and Sewell streets.....	Dorchester.	8	178	516 56	Public, unconstructed.
Sutton street.....	Woolson and Morton streets.....	Dorchester.	8	381	667 82	Private, unconstructed (rock).
Wilcox street.....	Beaumont street and Elm road.....	Dorchester.	8	427	772 75	Private, unconstructed.
Wildwood street.....	From Morton street.....	Dorchester.	8	220	414 14	Private, unconstructed.

Acadia road.....	From Centre street.....	West Roxbury.	8	307	642 87	Private, unconstructed (rock.)
Blanvon road.....	Hyde Park avenue and railroad.....	West Roxbury.	8	225	353 81	Private, unconstructed.
Bruce street.....	From Ricker street.....	West Roxbury.	8	223	473 01	Private, unconstructed (rock).
Bynner street.....	From Parkway.....	West Roxbury.	8	157	268 19	Public, macadam.
Carlford road.....	Hyde Park avenue and railroad.....	West Roxbury.	8	225	453 95	Private, unconstructed.
Cedarwood street.....	From Moss Hill road.....	West Roxbury.	8	450	715 74	Private, unconstructed.
Delford street.....	From Archdale road.....	West Roxbury.	8	16	74 50	Private, unconstructed.
Farquhar street.....	From Centre street.....	West Roxbury.	8	399	710 31	Private, unconstructed.
Gilmore terrace.....	From Park street.....	West Roxbury.	8	220	439 23	Private, unconstructed.
Greaton road.....	Schirmer road and Weld street.....	West Roxbury.	8	202	471 35	Private, unconstructed.
Haslett street.....	Pinehurst and Amherst streets.....	West Roxbury.	8	233	454 03	Public, tarvis macadam (rock).
Hogdon terrace.....	From Maple street.....	West Roxbury.	8	266	493 08	Private, unconstructed.
Keystone street.....	From North avenue.....	West Roxbury.	8	32	88 24	Private, unconstructed.
Leshner street.....	Washington and South streets.....	West Roxbury.	9	361	619 91	Private, unconstructed.
Montvale street.....	From Belgrade street.....	West Roxbury.	8	143	281 01	Private, unconstructed.
Moody street.....	From Roanoke road.....	West Roxbury.	8	95	178 47	Private, unconstructed.
Nut street.....	From North avenue.....	West Roxbury.	8	30	98 44	Private, unconstructed.
Ricker street.....	Walker and Bruce streets.....	West Roxbury.	8	232	453 25	Private, unconstructed.
Seminole street.....	Tampa and Oakland streets.....	West Roxbury.	8	399	742 70	Private, unconstructed (rock).
Stratford street.....	From Saville street.....	West Roxbury.	8	43	105 99	Public, macadam.
Theodore Parker road.....	From Schirmer road.....	West Roxbury.	8	42	73 15	Private, unconstructed.
Carried forward.....			.....	15,842	\$34,287 71	

Cost of Extension of Main Pipe.— Continued.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost.	Remarks.
<i>Brought forward</i>.....	.....	.....	.....	15,842	\$34,287 71	
Toll Gate road.....	From Washington street.....	West Roxbury.	8	24	84 05	Private, unconstructed.
Willow street.....	Weld and Babcock streets.....	West Roxbury.	8	102	350 61	Private, unconstructed.
Winslow street.....	From Perham street.....	West Roxbury.	8	21	74 53	Public, under construction.
Wright street.....	From North avenue.....	West Roxbury.	8	16	67 11	Private, unconstructed.
Brayton road.....	Kendrick and Breck avenues.....	Brighton.	8	875	1,376 47	Private, unconstructed.
Buckminster street.....	From Commonwealth avenue.....	Brighton.	8	242	498 77	Private, unconstructed.
Crescent circuit.....	From Larch street.....	Brighton.	8	637	1,032 68	Private, unconstructed.
Crescent circuit.....	From Breck avenue.....	Brighton.	8	45	109 63	Private, unconstructed.
Cypress road.....	Glencoe and Etna streets.....	Brighton.	8	119	274 33	Private, unconstructed.
Dunboy street.....	Faneuil and Perthshire streets.....	Brighton.	8	429	915 86	Public, macadam.
Harriet street.....	Hobart and Madeline streets.....	Brighton.	8	524	1,267 98	Private, unconstructed.
Kilayth terrace.....	From Kilayth road.....	Brighton.	8	315	732 60	Private, unconstructed (rock).
Radcliffe road.....	At No. 17.....	Brighton.	8	23	96 23	Private, unconstructed.
Waldo terrace.....	Washington and Henahaw streets.....	Brighton.	8	130	352 07	Public, unconstructed.
Gardner street.....	Main and Sever streets.....	Charlestown.	8	176	439 85	Public, macadam.
Agnes avenue.....	From River street.....	Hyde Park.	8	174	321 42	Private, unconstructed.
Bridge street.....	From Dana avenue.....	Hyde Park.	8	271	583 78	Public, macadam.
Easton avenue.....	From Dana avenue.....	Hyde Park.	8	178	311 43	Public, macadam.

Hebron street.....	Hyde Park.	8	61	129 66	Public, macadam.
Lakeside avenue.....	Hyde Park.	8	18	78 93	Private, unconstructed.
Warren avenue.....	Hyde Park.	8	350	626 64	Private, unconstructed.
Totals.....		8	20,572	\$44,012 34	
Fulton street.....	City Proper.	10	300	690 53	Public, concrete base, granite block.
Fulton street.....	City Proper.	10	464	1,260 92	Public, gravel base granite block,
Otis street.....	City Proper.	10	250	718 18	Public, concrete base, granite block.
Power House street.....	South Boston.	10	215	477 53	Private, unconstructed.
Baywater street.....	East Boston.	10	317	772 96	Public, unconstructed.
Beacon street.....	Roxbury.	10	342	749 71	Private, unconstructed.
Beacon street.....	Roxbury.	10	12	32 53	Public, macadam.
Beacon street.....	Roxbury.	10	52	136 75	Public, macadam.
Beacon street.....	Roxbury.	10	82	148 37	Public, macadam.
Butler street.....	Roxbury.	10	405	820 32	Private, unconstructed.
Holworthy street.....	Roxbury.	10	263	800 00	Private, unconstructed.
Massachusetts avenue.....	Roxbury.	10	186	506 73	Public, asphalt.
Althea street.....	Dorchester.	10	334	824 04	Public, unconstructed.
Delhi street.....	Dorchester.	10	230	890 94	Private, unconstructed (rock).
Dunbar avenue.....	Dorchester.	10	246	758 33	Private, macadam.
Franconia street.....	Dorchester.	10	568	1,241 12	Private, unconstructed.
Carried forward.....			4,266	\$10,828 96	

Cost of Extension of Main Pipe.—Continued.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost.	Remarks.
	<i>Brought forward</i>.....	.....	.....	4,266	\$10,828 96	
Franconia street.....	From Charlemont street.....	Dorchester.	10	215	399 39	Private, unconstructed.
Hall avenue.....	From Washington street.....	Dorchester.	10	175	424 39	Private, unconstructed (rock).
Lanark road.....	From Marie street.....	Dorchester.	10	342	1,227 45	Private, unconstructed (rock).
Leslie street.....	Woolson and Morton streets.....	Dorchester.	10	834	1,738 66	Private, unconstructed.
Lincoln road.....	From Leslie street.....	Dorchester.	10	16	96 99	Private, unconstructed.
Lucerne street.....	Woodrow avenue and Willowood street.....	Dorchester.	10	576	1,462 37	Private, unconstructed (rock).
Marie street.....	Lorna and Lanark roads.....	Dorchester.	10	229	504 42	Private, unconstructed (rock).
Newcastle street.....	From Savannah avenue.....	Dorchester.	10	239	913 91	Private, unconstructed (rock).
Orlando street.....	From Newcastle street.....	Dorchester.	10	342	849 17	Private, unconstructed (rock).
Theodore street.....	From Morton street.....	Dorchester.	10	344	717 75	Public, under construction.
Verdun street.....	Codman and Carruth streets.....	Dorchester.	10	611	1,321 20	Private, unconstructed.
Whitten street.....	Clematis street and end.....	Dorchester.	10	534	1,149 19	Private, unconstructed.
Archdale road.....	South side from Washington street.....	West Roxbury.	10	43	151 33	Private, unconstructed.
Archdale road.....	From Washington street.....	West Roxbury.	10	349	636 20	Private, unconstructed.
Ashmore road.....	From Hyde Park avenue.....	West Roxbury.	10	21	127 73	Public, macadam.
Cottage avenue.....	From Washington street.....	West Roxbury.	10	261	839 40	Private, unconstructed (rock).
Dellmore road.....	From Hyde Park avenue.....	West Roxbury.	10	22	114 45	Private, unconstructed.
Elvin road.....	From Washington street.....	West Roxbury.	10	275	651 59	Private, unconstructed.

Firth road.....	Washington street and Stony brook.....	West Roxbury.	10	480	902 92	Private, unconstructed.
George street.....	From North avenue.....	West Roxbury.	10	185	468 50	Private, unconstructed (rock).
Hayden street.....	Nikisch avenue and Washington street.....	West Roxbury.	10	358	774 48	Private, unconstructed.
Hobson street.....	From Beech street.....	West Roxbury.	10	461	912 47	Private, unconstructed.
Orange street.....	Brook and West streets	West Roxbury.	10	612	1,191 23	Private, unconstructed.
Parkton road.....	From Parkway.....	West Roxbury.	10	259	516 77	Private, unconstructed.
Private way.....	Calford and Blanvon roads.....	West Roxbury.	10	185	335 49	Right of way granted to Public Works Department to lay and maintain pipe line; 3 feet strip.
Russett road.....	Schirmer and Pierpont roads.....	West Roxbury.	10	249	498 25	Private, unconstructed.
Saville street.....	Park and Stratford streets.....	West Roxbury.	10	340	733 32	Public, under construction.
Schirmer road.....	Theodore Parker and Greation streets.....	West Roxbury.	10	472	1,023 60	Private, unconstructed.
St. Rose street.....	From North Weld place.....	West Roxbury.	10	200	373 91	Public, under construction.
Washington street.....	Hinsdale road and Washington Heights avenue.	West Roxbury.	10	1,450	3,875 06	Public, Massachusetts Highway, pipe in gravel sidewalk (rock).
Mann road.....	From Washington street.....	West Roxbury.	10	14	105 95	Public, Massachusetts Highway, pipe in sidewalk.
West street.....	From Orange street.....	West Roxbury.	10	161	472 74	Private, unconstructed.
Wyvern street.....	Hyde Park avenue and Florence street.....	West Roxbury.	10	472	1,265 21	Private, unconstructed (rock).
Arlington street.....	From Faneuil street.....	Brighton.	10	186	360 12	Private, unconstructed.
Bostonia avenue.....	From Breck avenue.....	Brighton.	10	47	145 31	Private, unconstructed.
Colon street.....	From Warren street.....	Brighton.	10	121	384 74	Private, unconstructed.
Colonial street.....	Euston road and end of line.....	Brighton.	10	88	247 51	Public, macadam.
	Carried forward.....		.....	16,054	\$38,742 13	

Cost of Extension of Main Pipe.— Continued.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost.	Remarks.
	<i>Brought forward</i>.....	.....	.....	16,054	\$38,742 13	
Glenco street.....	Garden and Saybrook streets.....	Brighton.	10	317	631 49	Public, under construction.
Hunnewell avenue.....	Burton and Matchett streets.....	Brighton.	10	335	604 00	Private, unconstructed.
Nottingham road.....	Nos. 55 and 59.....	Brighton.	10	51	82 98	Private, unconstructed.
Penniman street.....	From Braintree road.....	Brighton.	10	161	333 25	Private, unconstructed.
Walbridge street.....	Brainerd road and Commonwealth avenue...	Brighton.	10	487	946 24	Private, unconstructed.
Kennebec street.....	Oakland street and Roanoke road.....	Hyde Park.	10	925	1,968 16	Private, unconstructed.
Kennebec street.....	From Roanoke road.....	Hyde Park.	10	16	41 03	Public, macadam.
Roanoke road.....	Kennebec and Wood avenues.....	Hyde Park.	10	352	776 62	Private, unconstructed.
Upton road.....	From Vernon street.....	Hyde Park.	10	158	567 13	Private, unconstructed (rock).
Upton road.....	From Border road.....	Hyde Park.	10	248	474 66	Private, unconstructed.
Vernon street.....	At Upton road.....	Hyde Park.	10	24	53 40	Private, unconstructed.
	Totals.....	.....	10	19,128	\$45,221 09	
Albany street.....	Across Kneeland street.....	City Proper.	12	65	\$450 42	Public, granite block.
Atlantic avenue.....	Oliver and Broad streets.....	City Proper.	12	157	377 72	Public, granite block, concrete base.
Atlantic avenue.....	India and Milk streets.....	City Proper.	12	356	894 06	Public, granite block, concrete base.
Canal street.....	Causeway and Traverse streets.....	City Proper.	12	32	177 81	Public, concrete base, granite block.
Causeway street.....	Portland and Lancaster streets.....	City Proper.	12	178	752 62	Public, concrete base, granite block.

Friend street.....	Washington and Sudbury streets.....	City Proper.	12	317	862 63	Public, gravel base, granite block.
Harrison avenue.....	Kneeland and Bennet streets.....	City Proper.	12	308	924 89	Public, granite block.
Harrison avenue.....	Bristol and Randolph streets.....	City Proper.	12	573	1,609 89	Public, brick sidewalk.
India street.....	Atlantic avenue and India square.....	City Proper.	12	78	292 88	Public, granite block, concrete base.
Lancaster street.....	From Causeway street.....	City Proper.	12	189	740 73	Public, concrete base, granite block.
Lehigh street.....	From Albany street.....	City Proper.	12	170	527 15	Public, concrete base, granite block.
Oneida street.....	Harrison avenue and Albany street.....	City Proper.	12	545	1,386 93	Public, asphalt.
Portland street.....	At Sudbury street.....	City Proper.	12	27	115 36	Public, gravel base, granite block.
Portland street.....	Traverse and Causeway streets.....	City Proper.	12	61	146 42	Public, concrete base, granite block.
Portland street.....	From Causeway street.....	City Proper.	12	56	232 24	Public, concrete base, granite block.
Purchase street.....	Oliver and Hartford streets.....	City Proper.	12	15	43 54	Public, granite block, concrete base.
Purchase street.....	Oliver and Hartford streets.....	City Proper.	12	37	128 75	Public, granite block, concrete base.
Sudbury street.....	Portland and Friend streets.....	City Proper.	12	206	1,090 80	Public, gravel base, granite block.
Union Park street.....	Extension.....	City Proper.	12	59	328 20	Public, gravel base, granite block.
Washington street.....	Laconia and Perry streets.....	City Proper.	12	95	294 25	Public, granite block, concrete base.
A street.....	Melcher and First streets.....	South Boston.	12	28	92 84	Public, gravel base, granite block.
Condor street.....	Glendon and Eagle streets.....	East Boston.	12	369	960 05	Public, under construction.
Condor street.....	From East Eagle street.....	East Boston.	12	408	1,041 78	Public, under construction.
Harrison avenue.....	Renfrew and Dudley streets.....	Roxbury.	12	894	2,358 44	Public, brick sidewalk.
Renfrew street.....	From Harrison avenue.....	Roxbury.	12	97	233 47	Public, brick sidewalk, unconstructed.
	Carried forward.....			5,320	\$16,043 87	

Cost of Extension of Main Pipe.— Continued.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost.	Remarks.
	<i>Brought forward</i>			5,320	\$16,043 87	
Tremont entrance to Fenway,	Huntington avenue and Ruggles street.....	Roxbury.	12	807	1,262 84	Public, gravel sidewalk.
Burlington avenue.....	From Brookline avenue.....	Roxbury.	12	86	267 46	Public, unconstructed.
Wensley street.....	Bickford and Bucknam streets.....	Roxbury.	12	296	584 84	Public, unconstructed.
Charlemont street.....	From Minot street.....	Dorchester.	12	687	1,439 46	Private, unconstructed.
Freeland street.....	From Standard street.....	Dorchester.	12	680	1,508 63	Private, unconstructed (rock).
Harvard street.....	Morton street and Deering road.....	Dorchester.	12	837	2,047 39	Public, under construction (rock).
Harvest street.....	Lucerne and Willowood streets.....	Dorchester.	12	682	2,166 47	Private, unconstructed (rock).
Lucerne street.....	From Morton street.....	Dorchester.	12	29	186 18	Private, unconstructed.
Morton street.....	At railroad bridge.....	Dorchester.	12	110	336 06	Public, under construction.
Normandy street.....	Devon and Intervale streets.....	Dorchester.	12	327	677 42	Public, under construction.
Ogden street.....	From Fairmount avenue.....	Dorchester.	12	119	321 37	Private, unconstructed.
Auburn street.....	Washington street and Roslindale avenue.....	West Roxbury.	12	266	608 65	Private, unconstructed.
Baker street.....	Centre and Elmwood streets.....	West Roxbury.	12	751	1,768 89	Public, macadam (rock).
Castleton road.....	Huntington avenue and parkway.....	West Roxbury.	12	88	327 66	Public, macadam.
Centre street.....	Fletcher and Farquahar streets.....	West Roxbury.	12	210	540 83	Public, macadam.
Hyde Park avenue.....	Dellmore and Ashmore roads.....	West Roxbury.	12	780	2,165 98	Public, macadam.
Jamaicaway.....	Perkins street and Parkton road.....	West Roxbury.	12	941	2,310 95	Public, gravel walk.
La Grange street.....	Lasell and Vermont streets.....	West Roxbury.	12	66	261 89	Public, macadam.

Lasell street.....	From La Grange street.....	West Roxbury.	12	252	600 39	Private, unconstructed.
North avenue.....	Centre and Elmwood streets.....	West Roxbury.	12	935	2,019 06	Private, unconstructed.
Parkway.....	Bynner street and Parkton road.....	West Roxbury.	12	555	1,268 65	Public, gravel sidewalk.
Stimson street.....	Washington and Centre street.....	West Roxbury.	12	982	2,155 55	Public, macadam.
Tarleton road.....	From Temple street.....	West Roxbury.	12	20	50 20	Public, unconstructed.
Temple street.....	Hillcrest and Ivory streets.....	West Roxbury.	12	523	1,608 21	Public, under construction (rock).
Washington street.....	South street and Elven road.....	West Roxbury.	12	1,642	3,877 97	Public, macadam.
Whipple avenue.....	From Washington street.....	West Roxbury.	12	28	136 85	Private, macadam.
Dana avenue.....	Bridge street and railroad bridge.....	Hyde Park.	12	489	914 79	Public, macadam.
Dana avenue.....	Railroad bridge and Water street.....	Hyde Park.	12	87	278 01	Public, macadam.
Dana avenue.....	Over railroad bridge.....	Hyde Park.	12	121	747 57	Public, macadam.
Metropolitan avenue.....	From Highland avenue.....	Hyde Park.	12	213	594 70	Public, macadam.
In New York, New Haven & Hartford Railroad.	Yard at Readville.....	Hyde Park.	12	440	1,458 77	Private property, pay rent.
Sprague street.....	Railroad bridge and Dedham line.....	Hyde Park.	12	519	1,489 53	Public, macadam.
Wood avenue.....	At Roanoke road.....	Hyde Park.	12	27	45 90	Public, macadam.
	Totals.....		12	19,915	\$52,052 99	
Kneeland street.....	Hudson and Tyler streets.....	City Proper.	16	97	588 74	Public, granite block.
Cottage street.....	At Maverick street.....	East Boston.	16	18	192 74	Public, macadam.
Porter street.....	At Chelsea street.....	East Boston.	16	32	183 15	Public, macadam.
	Totals.....		16	147	\$964 63	

Cost of Extension of Main Pipe.— Concluded.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost.	Remarks.
Chelsea street.....	Brooks and Porter streets.....	East Boston.	24	1,356		Public, macadam.
Porter street.....	Chelsea and Cottage streets.....	East Boston.	24	1,149	\$22,882 75	Public, macadam.
Cottage street.....	Porter and Maverick streets.....	East Boston.	24	1,193		Public macadam.
	Totals .....	.....	24	3,698	\$22,882 75	
Broadway extension.....	Curve street and Harrison avenue.....	City Proper.	30	196	.....	Public, granite block, gravel base.
Curve street.....	Hudson street and Broadway.....	City Proper.	30	182	.....	Public, macadam.
Harrison avenue.....	Broadway and Nosnet street.....	City Proper.	30	33	\$25,630 94	Public, granite block, gravel base.
Hudson street.....	Kneeland and Curve streets	City Proper.	30	1,312	.....	Public, granite block, gravel base.
Kneeland street.....	Atlantic avenue and Hudson street.....	City Proper.	30	918	.....	Public, granite block, gravel base.
	Totals .....	.....	30	2,641	\$25,630 94	

Cost of Replacement of Main Pipe.

STAMMT.	Location.	District.	Size. (Inch.)	Feet.	Cost.	Original Size. (Inch.)	Remarks.
Haven street.....	Shawmut and Rutland streets.....	City Proper.	6	355	\$525 86	* 4	Public, macadam.
Wealeyan place.....	From Bromfield street.....	City Proper.	6	125	628 76	4	Private, granite block, gravel base.
Stanwood terrace.....	From Stanwood street.....	Dorchester.	6	150	324 93	1 1/2	Public, unconstructed.
	Totals.....		6	630	\$1,479 55		
Harvard place.....	From Washington street.....	City Proper.	8	105	709 58	4	Public, granite block (gravel base).
Rollins street.....	Washington street and Harrison avenue.	City Proper.	8	320	749 19	6	Public, macadam, paved gutter.
Cedric street.....	Magasine and Langdon streets.....	Roxbury.	8	103	164 66	6	Public, macadam.
Dilworth street.....	From Northampton street.....	Roxbury.	8	38	105 36	6	Public, macadam.
Ingleide street.....	At Dacia street.....	Roxbury.	8	25	40 75	6	Public, macadam.
Bispham street.....	From Park street.....	Dorchester.	8	56	118 93	3	Private, unconstructed.
Woolson street.....	Sutton and Wildwood streets.....	Dorchester.	8	171	732 58	8	Public, macadam (rock).
Bartlett square.....	From Green street.....	West Roxbury.	8	291	655 68	6	Public, macadam.
Bardwell street.....	From Ballard street.....	West Roxbury.	8	196	483 59	6	Public, macadam.
Goldsmith street.....	Across Custer street.....	West Roxbury.	8	37	119 07	6	Public, macadam.
Kittredge street.....	Cornell street and Glendower road,	West Roxbury.	8	143	337 00	8	Public, macadam.
St. Joseph street.....	At Woodman street.....	West Roxbury.	8	45	85 04	6	Public, macadam.
Glenwood place.....	From Washington street.....	Hyde Park.	8	402	557 81	2	Private, unconstructed.
	Totals.....		8	1,932	\$4,859 24		

* Lead.

Cost of Replacement of Main Pipe.— Concluded.

STREET.	Location.	District.	Size. (Inch.)	Feet.	Cost.	Original Size. (Inch.)	Remarks.
Fruit street.....	At Charles street.....	City Proper.	10	20	57 47	10	Public, macadam.
North Centre street.....	Hanover and North streets.....	City Proper.	10	388	1,267 81	6	Public, granite block (gravel base).
Dacia street.....	Brookford and Dewey streets.....	Roxbury.	10	664	1,237 74	6 and 8.	Public, under construction.
Watson street.....	Northampton and Camden streets,	Roxbury.	10	394	959 43	6 and 8.	Public, macadam.
Alexander street.....	Bird and Dudley streets.....	Dorchester.	10	521	1,103 24	6	Public, under construction.
Westwood street.....	Richfield street and Wales place...	Dorchester.	10	669	1,382 70	6 and 8.	Public, under construction.
Ballard street.....	Custer and Centre streets.....	West Roxbury.	10	588	1,221 12	6	Public, macadam.
Jamaica street.....	Woodman and St. Rose streets.....	West Roxbury.	10	500	1,055 91	6 and 8.	Public, macadam.
St. Rose street.....	From Jamaica street.....	West Roxbury.	10	592	1,061 05	6	Public, macadam.
Woodman street.....	Custer and Jamaica streets.....	West Roxbury.	10	506	912 98	6	Public, macadam.
Commonwealth avenue....	At Fordham road.....	Brighton.	10	32	117 77	10	Public, macadam.
Glenco street.....	Garden and Saybrook streets.....	Brighton....	10	41	155 44	8	Public, under construction.
	Totals.....	.....	10	4,015	\$10,532 66		
Blackstone street.....	Clinton and North streets.....	City Proper.	12	300	1,340 38	12	Public, granite block, concrete base.
Clinton street.....	Blackstone and Commercial streets,	City Proper.	12	192	1,040 93	12	Public, granite block, concrete base.
Dorchester avenue.....	Fourth and Fifth streets.....	South Boston.	12	294	528 28	12	Public, granite block, gravel base.
Summer street extension...	At Harbor street.....	South Boston.	12	115	370 56	8 and 12.	Public, granite block, concrete base.
Neptune road.....	At Cottage street.....	East Boston.	12	15	47 32	12	Public, gravel.

Neptune road.....	At Frankfort street.....	East Boston.	12	22	75 89	12	Public, gravel.
Burlington avenue.....	From Brookline avenue.....	Roxbury.	12	343	849 56	4	Public, macadam.
Commonwealth avenue....	Massachusetts avenue and Charles-gate.	Roxbury.	12	800	2,451 62	6 and 8.	Public, macadam.
Jersey street.....	Queensberry and Peterborough streets.	Roxbury.	12	160	517 13	12	Public, macadam.
Louis Prang street.....	At Tremont entrance.....	Roxbury.	12	10	63 59	12	Public, macadam.
Magazine street.....	At Cedric street.....	Roxbury.	12	20	91 62	12	Public, macadam.
Northampton street.....	Columbus avenue and Watson street.	Roxbury.	12	367	851 74	6	Public, macadam.
Dorchester avenue.....	At Rosemont road.....	Dorchester.	12	11	94 26	12	Public, macadam.
New England avenue.....	Norfolk and Southern avenues....	Dorchester.	12	59	119 10	12	Public, macadam.
Centre street.....	South side of Baker street.....	West Roxbury.	12	14	100 08	12	Public, macadam.
Custer street.....	South and Centre streets.....	West Roxbury.	12	1,047	2,506 42	6	Public, macadam.
Hyde Park avenue.....	Opposite Dellmore road.....	West Roxbury.	12	10	91 25	12	Public, macadam.
Ivory street.....	Temple and Perham streets.....	West Roxbury.	12	306	685 57	6	Public, macadam.
Perham street.....	Ivory and Vermont streets.....	West Roxbury.	12	1,747	3,740 97	6	Public, under construction (rock).
Temple street.....	Hillcrest and Ivory streets.....	West Roxbury.	12	100	265 78	8	Public, under construction (rock).
Breck avenue.....	Washington and Brayton streets..	Brighton.	12	984	2,016 62	6-8-12	Public, under construction.
Sprague street.....	Railroad bridge and Dedham line..	Hyde Park.	12	876	2,518 71	4-6-14	Public, macadam.
	Totals.....	.....	12	7,772	\$20,367 38		

WATERWORKS STATISTICS—CITY OF BOSTON.

FOR THE FISCAL YEAR ENDING JANUARY 31, 1917.

CONSUMPTION.

Estimated population supplied	762,700
Total consumption for year 1916	29,411,320,800 gallons
Passed through meters for year 1916	14,904,646,100 gallons
Percentage of consumption metered	50.7
Daily average consumption for the year 1916	80,358,800 gallons
Gallons per day to each consumer	105 gallons

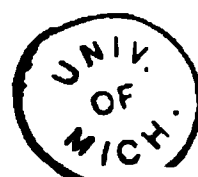
DISTRIBUTION.

Mains.

Kind of pipe: Cast iron, wrought iron.
 Sizes: 2-inch to 48-inch.
 Extended, miles: 12.92.
 Sizes enlarged, miles: 2.79.
 Total miles now in use: 864.34.
 Public hydrants added: 170.
 Public hydrants now in use: 9,528.
 Stop gates added: 265.
 Stop gates now in use: 12,514.
 Stop gates smaller than 4 inches: 28.
 Number of blow-offs: 630.
 Range of pressure on mains: 30 to 90 pounds.

Services.

Kind of pipe and size: Lead and lead-lined, $\frac{1}{2}$ -inch to 2-inch; cast iron, 2 $\frac{1}{2}$ -inch to 12-inch; wrought iron and cement lined, $\frac{1}{2}$ -inch to 2-inch.
 Extended, feet: 32,978.
 Total miles now in use: 583.85.
 Service taps added: 1,406.
 Total service taps now in use: 107,514.
 Meters added: 7,144.
 Total meters now in use: 61,154.
 Percentage of services metered: 56.88.
 Motors and elevators in use: 606.
 Number of fire pipes connected to the system: 1,361.
 Standpipes for street watering: 540.
 Standpipes for street watering by electric cars: 12.
 Yearly revenue from annual water rates \$546,635 04
 Yearly revenue from metered water \$2,491,339 62
 Percentage of total revenue from metered water 82.1





DIRECT LINES FROM HIGH PRESSURE HYDRANTS
DOMESTIC HIGH SERVICE SUPPLY.

HIGH PRESSURE FIRE SERVICE.

PIPE LINES.

Excessive leakage conditions existing in the piping laid in 1914 and 1915 have been corrected by the contractors and by day labor forces of this service, so that, with the exception of two short sections, all the system is in fairly good condition. When the recorded leakage was reduced to four gallons per minute per lineal foot of joint, excavating was discontinued on that section, as this figure is the specified leakage in Manhattan piping system, where the trenches are backfilled before testing.

Test records of nine sections we found to have been recorded in our books by an employee of one of the contractors and as far as is known were not witnessed by an employee of this service. The records of these tests are among the smallest leakage rate of any, and it is intended the coming season to get tests conducted by the service of these sections.

Pipe laying continued during 1916 in the following streets: School street, from City Hall avenue to Washington; Broad street, from India square to Franklin street and up Franklin street to Oliver street; Purchase and Summer streets, from Congress street to South street; North street and Merchants row, from Blackstone street to Quincy Market, and included 1,163 lineal feet of 12-inch pipe with 6 valves; 1,280 feet of 16-inch pipe with 2 valves; 253 feet of 8-inch pipe with 16 valves and 16 hydrants, making a total of 2,696 lineal feet installed by Coleman Brothers on a unit price contract.

All sections of lines laid in 1916 were tested with the joints exposed, and as this was done on narrow and busy streets without serious complaint it has become an accepted policy intended to be carried out on all future pipe laying.

At the end of the season there were 188 hydrants out of a total of 192 ready for service from acceptable pipe lines, all connected up with the fireboat delivery at Central Wharf. Considering that the old fireboat high

pressure line, nearly a mile long and with 11 hydrants, installed in 1898, had been used in but one fire, a 16-inch connection with the high service distribution system was installed in Tremont street, near West street, and all hydrants are now available for fire purposes with direct hose streams or fire engines. A test of direct hose streams from the street, and into deck guns, at Haymarket square, was conducted December 3, in the presence of representatives of the National Board and Boston Board of Fire Underwriters, with very satisfactory results.

The state and city boards of health would not permit both the high service connection and that from the fireboat, so the latter was dismantled.

PUMPING STATION.

A legislative act, approved March 14, 1916, authorized the city to construct a pumping station in the Charles River Basin, on the Boston side, between the Cambridge Bridge and the Charles river dam, and authority was granted on June 8, 1916, by the War Department to construct the station in a location requested by the city, about opposite Fruit street.

For the size of station proposed at that time to erect this appeared to be the only available satisfactory location, but if a suitable area were reclaimed in the basin a building attractive enough in appearance to suit the location erected, and an equipment the same as that proposed for the original Charles street station installed, there would have been practically nothing left of the \$1,000,000 appropriated by the Legislature to construct the system, and for which the city would have a very large pumping station and only 6½ miles of piping system, with no connection between the two.

Action by the Legislature in 1911 was urged by the Chamber of Commerce and the Finance Commission, and the latter body recommended on May 12, 1911, that after inspection and careful consideration of the plans prepared by City Engineer Jackson and the less expensive plan suggested by Fire Commissioner Wells, the City Council pass a vote accepting the act, provided it feels assured that the executive department will adopt a plan which will secure an adequate high pressure service for not more than the sum appropriated.

The Jackson plan proposed about 13¼ miles of pipe

LINES FROM HIGH PRESSURE HYDRANTS INTO HOSE WAGON GUNS.
DOMESTIC HIGH SERVICE SUPPLY.



mains with 319 hydrants, and the scheme proposed in connection with the large station comprised about 15 miles of pipe mains and 410 hydrants.

After a thorough investigation of the high pressure fire service in other cities, and the relationship of its service here to the city's general fire protection, the department reached a conclusion that a smaller station would fulfill any reasonable demand for the very restricted neighborhood it was proposed to protect at the expense of the entire city, and that it should be located to better advantage for power, hydraulic conditions, and future proposed extension of the piping system, close by the North End Park on Commercial street.

The department had in mind a smaller station than the one now contemplated (12,000 gallons per minute), but by coöperation with the Chamber of Commerce this size was agreed upon by both as suitable to erect at once, and in the location mentioned, and approval obtained from his Honor the Mayor.

It is thought that with the money available this station can be built and connected with the existing system with suitable feeders having necessary hydrants, and faith kept with the Legislature, the Mayor and City Council that a complete high pressure fire system be installed for the money now available.

To complete the piping system as intended, additional money could reasonably be requested from the next Legislature.

Financial Statement for Year Ending January 31, 1917.

Expended to January 31, 1916 \$591,897 97

Expenditures during the fiscal year 1916-17:

Salaries and wages:

Engineers and	
assistants	\$16,230 65
Inspectors	2,875 60
Foremen	1,719 17
Clerks	1,273 30
Mechanics	1,067 52
Laborers	381 94

Total pay roll	\$23,548 08
Construction of distribution system,	20,601 76
Water pipes and castings	9,587 17
Improvements and repairs at yard,	2,416 35
Paving, street repairs, etc.	1,869 54

Carried forward	\$58,022 90	\$591,897 97
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<i>Brought forward</i>	\$58,022 90	\$591,897 97
Tools and repairs	1,207 40	
Teaming, freight, etc. . . .	718 09	
Engineer's supplies	545 54	
Rent of South Bay yard	499 98	
Borings, Charles River Basin	366 82	
Stationery	333 16	
Traveling expenses	317 83	
Lumber	253 57	
Printing	175 73	
Inspection of castings	145 32	
Telephones	65 09	
Furniture and furnishings	54 22	
Professional and expert services	29 00	
Advertising	24 65	
Postage	24 50	
Cement and sand	18 15	
Bricks	18 00	
Waterproof clothing	11 72	
Cracked stone and gravel	10 73	
Drain pipe	7 99	
Fuel	7 00	
Copies of license for pumping station	2 00	
Oil	80	
Electric lighting	75	
Automobile:		
Tires, tubes, etc., \$145 71		
Gas, oils, etc. . 140 47		
Repairs, supplies . . 168 91		
License . . 2 00		
	<hr/> \$457 09	
Less repairs and supplies by Water Service:		
Tires, tubes . \$39 08		
Gas, oils, etc. . 118 09		
Repairs, supplies . . 34 56		
	<hr/> 191 73	
	<hr/> 265 36	
Expenditures 1916-17	<hr/>	63,126 30
Total expenditures to January 31, 1917		<hr/> \$655,024 27
Unexpended balance January 31, 1917		<hr/> \$204,975 73
Plus		<hr/> 140,000 00
		<hr/> <hr/> \$344,975 73

APPENDIX D.

REPORT OF THE BOSTON AND CAMBRIDGE
BRIDGE COMMISSION.

Boston, February 1, 1917.

HON. JAMES M. CURLEY,
Mayor of Boston:

SIR, — As commissioner for the City of Boston I respectfully submit herewith the annual report of the Boston and Cambridge Bridge Commission for the year ending January 31, 1917.

The commission is composed of two members, one appointed by the Mayor of the City of Boston and the other by the Mayor of the city of Cambridge, under provisions of chapter 467, Acts of 1898.

The commission has charge of the maintenance of the following-named bridges connecting the cities of Boston and Cambridge: Anderson, Brookline Street, Cambridge, Harvard, Prison Point, River Street and Western Avenue to Cambridge.

As there is no special appropriation made for the City of Boston's portion of the expenses of this commission, the same is taken from the appropriation for the Bridge and Ferry Division, Bridge Service. The amount expended during the fiscal year ending January 31, 1917, was \$18,945.39.

I take this opportunity to express to the Cambridge member of the commission, Francis J. Smith, my appreciation of his coöperation and assistance in conducting the business of the commission.

Tables are annexed showing the distribution of the expenditures for the year, also statements of the draw-openings.

The following is a brief statement of the work done on the different bridges during the year:

HARVARD BRIDGE.

The piers have been repaired and frequent repairs have been made on the roadways. The wood block and

Shuman pavement on the bridge are in poor condition and some form of pavement should be put down which is better suited to the needs of this bridge. On account of the heavy traffic and vibration the pavement now in use requires frequent renewal and almost constant repairs. The wear and tear on the bridge due to the heavy traffic becomes worse every year and something will have to be done in the near future to remedy this condition.

The fences have been damaged in several places by automobiles and will need extensive repairs during the coming year.

The piers, also, will need repairs in the near future.

BROOKLINE STREET BRIDGE.

The section of the bridge used by the Boston Elevated Railway has been redecked by that company. Some repairs have been made on the sidewalks. More repairs will be needed during the coming year.

PRISON POINT BRIDGE.

This bridge has been resheathed and will require extensive repairs during the coming year. The traffic over the bridge is very heavy, necessitating frequent repairs to keep it safe for travel.

CAMBRIDGE BRIDGE.

The pavement near the rails of the Elevated has been relaid and several of the heavy iron lamp-posts have been repaired. With the exception of some of the other lamp-posts the bridge is in good condition and will not require much attention during the coming year.

RIVER STREET AND WESTERN AVENUE BRIDGES.

The usual repairs to the roadway have been made during the year and the same attention will be needed during the coming year. Both are in fairly good condition but require frequent repairs on account of the heavy traffic.

Respectfully submitted,

E. F. MURPHY,

Commissioner for the City of Boston.

Expenditures for the Year 1916-17.

(Same being the City of Boston's Portion — Which is One Half — of the Total Expenditures.)

	Administration.	Anderson Bridge.	Cambridge Street-River Street Bridge.	Cambridge Bridge.	Essex Street-Brookline Street Bridge.	Harvard Bridge.	Prison Point Bridge.	Western Avenue Bridge to Cambridge.	Totals.
Salaries.....	\$250 00	.....	\$3,069 78	\$1,569 09	.....	\$3,202 65	\$3,205 39	.....	\$11,296 91
Inspection.....	.....	.....	132 00	12 00	.....	108 00	160 00	\$168 00	580 00
Repairs, roadways.....	.....	.....	222 41	4 43	.....	480 72	435 60	278 22	1,421 38
Repairs, piers and fences.....	.....	.....	.....	.....	.....	103 11	52 16	255 35	410 62
Repairs, conduits.....	.....	.....	.....	.....	.....	50 38	.....	.....	50 38
Repairs, machinery.....	.....	.....	.....	.....	.....	335 46	.....	.....	335 46
Repairs, lamp-posts.....	.....	.....	.....	212 50	.....	.....	.....	.....	212 50
Lumber.....	.....	.....	62 90	.....	.....	340 36	395 98	109 56	908 80
Light.....	.....	\$303 88	25 64	1,567 13	\$203 60	822 57	12 30	25 62	2,960 74
Fuel.....	.....	.....	13 58	.....	.....	29 20	24 02	.....	66 80
Tools, hardware and supplies.....	.....	.....	44 56	21 33	.....	116 87	33 96	12 79	229 51
Sweeping and sanding bridge.....	.....	15 41	.....	47 09	3 50	148 85	.....	.....	214 85
Office expenses:									
Printing, postage, stationery.....	32 68	.....	.....	.....	.....	.....	.....	.....	32 68
Telephone.....	10 14	.....	.....	.....	.....	.....	.....	.....	10 14
Traveling expenses.....	120 00	.....	.....	.....	.....	.....	.....	.....	120 00
Miscellaneous.....	.....	.....	.....	.....	.....	90 62	4 00	.....	94 62
Totals.....	\$412 82	\$319 29	\$3,570 87	\$3,433 57	\$207 10	\$5,828 79	\$4,323 41	\$849 54	\$18,945 39

* Includes expense of drawtenders' services at the Western Avenue Bridge.

Monthly Summary of Draw Openings, Boston and Cambridge Bridges, February 1, 1916, to January 31, 1917.

	CAMBRIDGE STREET- RIVER STREET BRIDGE.			HARVARD BRIDGE.			PRISON POINT BRIDGE.			WESTERN AVENUE BRIDGE.		
	Vessels.	Cargoes.	Openings.	Vessels.	Cargoes.	Openings.	Vessels.	Cargoes.	Openings.	Vessels.	Cargoes.	Openings.
1916.												
February.....	.....	.....	.....	9	.....	6	50	8	34	.....	.....	.....
March.....	.....	.....	.....	24	2	20	42	8	21	.....	.....	.....
April.....	5	.....	3	62	12	36	55	9	33	4	.....	2
May.....	.....	.....	.....	60	13	34	42	7	28	.....	.....	.....
June.....	14	.....	8	81	15	47	39	7	21	10	.....	4
July.....	6	.....	2	69	13	42	30	5	20	6	.....	2
August.....	2	.....	2	71	14	42	57	9	32	1	.....	1
September.....	2	.....	1	77	13	49	27	4	14	.....	.....	.....
October.....	5	.....	4	70	14	41	50	9	31	5	.....	4
November.....	.....	.....	.....	57	11	36	36	6	23	.....	.....	.....
December.....	.....	.....	.....	113	14	74	52	9	32	.....	.....	.....
1917.												
January.....	.....	.....	.....	18	1	16	49	8	30	.....	.....	.....
Totals.....	34	.....	20	711	122	443	529	89	319	26	.....	13

Annual Summary of Draw Openings, February 1, 1916, to January 31, 1917.

BRIDGE.	TUGS.			BARGES.			ALL OTHERS.			TOTAL VESSELS.			Cargoes.	Openings.
	Day.	Night.	Total.	Day.	Night.	Total.	Day.	Night.	Total.	Day.	Night.	Total.		
Cambridge Street-River Street.....	10	2	12	.....	.....	.....	21	1	22	31	3	34	.....	20
Harvard.....	454	1	455	255	.....	255	1	.....	1	710	1	711	122	443
Prison Point.....	328	21	349	97	4	101	70	8	79	495	34	529	89	319
Western Avenue to Cambridge.....	8	2	10	.....	.....	.....	16	1	16	24	2	26	.....	13
Totals.....	800	26	826	352	4	356	108	10	118	1,260	40	1,300	211	795